University at Buffalo The State University of New York

2025

Collegiate Science & Technology Entry Program (CSTEP)

2025 CSTEP Research Interns Cohort at University at Buffalo- Capen Hall

SUMMER RESEARCH PROGRAM

RESEARCH SYMPOSIUM & LUNCHEON

NEW YORK STATE CSTEP
COLLEGIATE SCIENCE & TECHNOLOGY ENTRY PROGRAM
preparing science, technology & licensed professionals since 1986

Thursday, July 31, 2025
1:00 – 3:30 pm
University at Buffalo
Jacobs School of Medicine
& Biomedical Sciences

PROGRAM ORDER

WELCOME & OPENING REMARKS
SHANNA CRUMP-OWENS
Director, Collegiate Science & Technology Entry Program (CSTEP)

LUNCHEON & SLIDESHOW NARRATIVE
NELSON RIVERA
CSTEP Alumni

STUDENT PERSPECTIVES
Daija Brewer, Michael De La Cruz, Jelissa Milien-Ortiz, Eunice Olusanya

POSTER COMPETITION & JUDGES PRESENTATION
DR. LAVONE RODOLPH
Post-Doctoral Researcher, Computer Science & Engineering

FACULTY MENTOR & STUDENT AWARD PRESENTATION
SHANNA CRUMP-OWENS
Director, Collegiate Science & Technology Entry Program (CSTEP)

DR. BARNARD ONYENUCHEYA
Research Methods Instructor, Assistant Professor of Teaching, Electrical Engineering

CLOSING REMARKS
SHANNA CRUMP-OWENS
Director, Collegiate Science & Technology Entry Program (CSTEP)

University at Buffalo
Collegiate Science and Technology Entry Program

CSTEP MOTTO: "TO WHOM MUCH IS GIVEN, MUCH IS EXPECTED"

CSTEP DIRECTOR'S MESSAGE

Welcome to the 19th Annual CSTEP Summer Research Symposium! Today, we celebrate the fruition of our research interns' hard work during our 10-week Summer Research Program. As they present their mentored research to judges, peers, faculty, and staff; they can look back on their efforts with pride. I congratulate them on their dedication to excellence and research. Their work reflects not only their individual growth, but also the collective potential of a generation with the capacity to solve complex problems.

In today's higher education landscape, where access, equity, and opportunity are being redefined, programs like CSTEP remain essential. We continue to affirm the alignment of *excellence, merit, and diversity. They are not competing ideals.* The success of our interns demonstrates that talent exists everywhere and with the right structure, resources, and mentorship, that talent can thrive and lead.

Our goal this summer was to deliver a holistic and transformative experience, one that positioned research not just as an academic pursuit, but as a tool for impact. Through faculty-mentored research, a rigorous research methods course, dynamic seminars, and intentional professional development, our interns gained the knowledge, skills, and confidence to contribute meaningfully to their fields and communities.

Research is one of the most powerful tools we have for deepening understanding within our respective disciplines. It is also one of the most effective levers for advancing students toward graduate and professional study. This summer, our interns sharpened their critical thinking, strengthened their communication, and developed leadership and problem-solving skills that will serve them well beyond this summer experience.

To our 75+ partners including faculty research mentors, seminar instructors, workshop facilitators, judges, alumni, and staff - thank you! Your generosity of time, expertise, and mentorship are the backbone of this program. You have helped us create a vibrant community that challenges, stretches, and supports our students. We value your partnership and look forward to building on this shared mission.

To our interns - *thank you* for saying yes to this opportunity, planned with you in mind to maximize your potential. We are confident that the research experience, research methods course, seminars, professional development, and fieldtrips fostered a sense of community and belonging while enhancing your undergraduate experience. We hope you felt cared for, and found the support, guidance, and nurturing to be a beneficial experience that you can later pay forward. Continue to take advantage of resources, engagement, and opportunities through other aspects of CSTEP. Remember to carry the values we champion by exemplifying the CSTEP motto: *"To whom much is given, much is required."*

It has been our privilege and pleasure to work with you. We are proud of you, we believe in you, and we look forward to continuing this journey with you in the academic year ahead.

Warm regards,

SHANNA CRUMP-OWENS
CSTEP Director

WHAT'S IN IT FOR ME?
THE PERKS OF JOINING UB CSTEP

CSTEP offers valuable tools: advisement, tutoring, paid research internships, scholarships, service learning, specialized courses and travel to conferences and workshops, which empower students to become successful in their chosen profession. Our alumni have made major contributions in both their careers and communities. Many of these same graduates report that CSTEP played a key role in helping to develop the confidence and skills necessary to navigate through their college years and into the profession of their dreams.

UB CSTEP offers the following programs and services for our students:

PAID RESEARCH & INTERNSHIP OPPORTUNITIES

Paid research and internships are an integral part of CSTEP - to introduce talented students to the culture of research, provide insight related to their major and expose students to the rigors of graduate study. The CSTEP Research Internship Program exposes selected students to research and career opportunities in their major. CSTEP works with students to identify faculty research mentors or internship supervisors.

ACADEMIC YEAR RESEARCH/INTERNSHIP PROGRAM

During the academic year, interns work for 10-12 weeks per semester under the guidance of a research mentor or internship supervisor. Students are assigned a research project for up to 10 hours per week, at the discretion of the research or internship supervisor. Students are awarded a research stipend from CSTEP during their research or internship experience.

SUMMER RESEARCH PROGRAM

The CSTEP Summer Research Program is an intensive 10-week program designed to enhance the competitiveness of talented students pursuing STEM and the allied health professions, by strengthening participants' research skills and preparing them for graduate/professional school. Students are matched with faculty to conduct research for 25-30 hours per week. In addition to gaining research experience, students participate in a research methods course, seminars, and field trips. As a capstone, students present their research to their peers, faculty and the University community during our Annual Research Symposium & Luncheon, as well as at the UB Undergraduate Research Conference. The summer program takes place from the end of May through the end of July. Applications are due in early March each year.

ALUMNI CONNECTIONS

CSTEP students have access to a network of engaged alumni through CSTEP Connect and our Alumni Insights Series. CSTEP Connect occurs during UB's winter session and CSTEP students can connect with CSTEP alumni for a one-time, 1 hour virtual meeting for advice on careers and graduate/professional school pathways. CSTEP Alumni Insights is a monthly series for our CSTEP alumni to connect with and empower our CSTEP students at their alma mater. Alumni are invited to share insights with CSTEP students during a 1-hour workshop inspired by their careers, personal journeys, and expertise.

FUNDING OPPORTUNITIES FOR CONFERENCES

CSTEP covers travel expenses for selected academic, career, and graduate school conferences and enrichment programs. These opportunities boost students' leadership skills, while building their resumes.

GRADUATE SCHOOL PREPARATION

CSTEP awards scholarships to students for Kaplan Review Courses, which provide preparation for standardized graduate entrance exams, including the GRE, MCAT, LSAT, GMAT, FE Exam and PCAT exams. Our staff also assists with personal statement preparation and review, and provides mock interviews for students applying to graduate/professional schools. CSTEP also offers a Graduate School Fee Waiver for current CSTEP students applying to graduate or professional school. More details can be found on our website.

SERVICE LEARNING CLASS

A cohort of 20-25 students is selected to engage in a semester-long structured service learning project, becoming a Campus Health Educator (CHE). The goal of CHE is to increase the number of individuals participating on the organ donor registry. This goal is achieved by engaging students pursuing allied health majors in service learning, and training them to conduct educational workshops for UB students, and facilitating a campus-wide organ donor registry drive. Our partner for the CHE Service Learning Class is ConnectLife.

CSTEP SHADOW DAY

CSTEP students serve as mentors to local high school students enrolled in the Science Technology Entry Program (STEP). As mentors, CSTEP students allow STEP students to "shadow" them by attending classes with them to get a glimpse of what college classes are like.

CSTEP DAY OF SERVICE

CSTEP students visit Health Sciences Charter School to share their collegiate experiences with students in their classrooms. This serves as a vehicle to give students from targeted high schools "college knowledge" while also introducing them to STEM fields and the licensed professions.

SATURDAY OF SERVICE

CSTEP students team up with the Tool Library, a non-profit charitable organization seeking to provide communities with access to tools and resources, promoting sharing, sustainability, and community development. They empower individuals and organizations to tackle projects, repairs, and community improvements by offering tools for loan, often alongside educational programs and skill-sharing opportunities. In 2024 Summer Research Program interns volunteered with the Tool Library and Bailey Avenue Business Association to engage in gardening and cleanup at the Bailey-Dartmouth Community Garden, and additionally engaged in fall clean-up and bulb planting event at the William L.Gaiter Parkway in the Norfolk Avenue neighborhood. In 2025, Summer Research Program interns volunteered for Ride for Roswell on UB North Campus, to raise funds for cancer research and innovative care at Roswell Park Comprehensive Cancer Center.

SUPPORT FROM THE CSTEP NETWORK OF STAFF, STUDENTS, AND ALUMNI

We offer academic, career, and personal counseling to assist students in overcoming difficulties, finding solutions, and establishing their priorities. The CSTEP Billboard, website, and Student Recognition Dinner recognize the achievements of our students and help build the camaraderie that our students have come to rely on.

MONTHLY EVENTS, WORKSHOPS, AND ENGAGEMENT ACTIVITIES

Monthly meetings help build the community our students have come to rely upon. Students who attend our monthly meetings gain invaluable advice as they have the opportunity to learn from each other's experiences and receive professional advice from alumni and guest speakers. Below is a list of several of this year's workshops and enrichment activities:

CSTEP Welcome Back BBQ
Preparing for Graduate School
Student Research Luncheons
Rx for Success (Medical School)
Insights for Engineering: Panel of Engineers
Demystifying Technical Interviews
Explore Law Panel

A Level Up: Resume Review
Getting Your Writing Right
Law School for a Day
Medical School Mock Interview Day
Shadow Day
Day of Service
Student Celebration Dinner

CSTEP CAREERS

Architect • Audiologist • Biologist • Dietitian • Certified Public Accountant • Chemist • Chiropractor • Computer Scientist • Dentist • Geologist • Engineer • Lawyer • Mathematician • Medical Doctor • Midwife • Nurse Practitioner • Occupational Therapist • Occupational Therapy Assistant • Optometrist • Pharmacist • Physical Therapist • Physicist • Podiatrist • Psychologist • Physician Assistant • Registered Nurse • Respiratory Therapist • Social Worker • Speech-Language Pathologist • Veterinarian

MAKING A DIFFERENCE IN WNY:

UB CSTEP HIGHLIGHTS

CSTEP broadens participation of students both in Science, Technology, Engineering, Mathematics (STEM) and the licensed professions. Resources available to CSTEP students include: paid research with faculty, internships, graduate school preparation, scholarships, standardized test preparation, application fee waivers and academic and career guidance, monthly seminars, travel to professional conferences, and a support network to assist promising students in achieving their academic and professional goals.

Did You Know...?

- More than 90% of UB CSTEP students have entered into the CSTEP targeted professions or attended graduate school after obtaining their bachelor's degree.
- 57% of students possess overall GA above 3.0 and 39% have a 2.0-2.99 GPA.
- The average GPA for our 2025 Summer Research Interns is 3.39.
- The average GPA for all CSTEP students is 3.17.
- The average GPA for our graduating seniors was 3.12.
- Our current enrollment is 458 students. 109 of our students are graduating seniors.
- Of our CSTEP students, 9% are Freshman, 18% are Sophomores, 27% are Juniors and 46% are Seniors.
- Of our CSTEP students, 62% are Female, 37% are Male and 0.4% are Non-Binary.
- Over half, 53% of CSTEP students are First Generation College Students.
- This year, 50 CSTEP students were placed in funded research internships and completed over 20,080 hours.
- To help provide service to our students, CSTEP has hired a cadre of approximately 185 Graduate and Student Assistants to work within our office. This provides funding for the staff during their time as graduate and undergraduate students at UB

WHY DO RESEARCH? STUDENT PERSPECTIVES

Written by the 2025 Summer Research Cohort

Undergraduate research is a highlight of many students' experiences. It provides students with an invaluable opportunity to explore the varying aspects of research under direct guidance and mentorship from decorated faculty members. The Collegiate Science and Technology Program (CSTEP) Summer Research Program (SRP) is a comprehensive, immersive experience that provides students with an opportunity to learn from experts within their fields. For 9 weeks SRP participants work closely with a faculty mentor while engaging in professional development. The SRP provides participants with opportunities to gain confidence in their research, analysis and public speaking skills while contributing to a diverse scholarly community.

Our summer cohort is driven by diverse aspirations, and united by a common belief in research as the peak of learning and innovation. **Ebony Lawrence,** a sophomore computer science and engineering student, finds that, "Undergraduate research is a great opportunity that opens doors to a plethora of other opportunities you never thought you would find. It allows undergraduates to gain a higher level of experience than their regular bachelor's degree and gives insight into whether academia is something they might want to pursue. Engaging in research shows genuine interest in your discipline and demonstrates initiative by applying what you've learned in real-world or investigative contexts."

The summer cohort cultivates an environment that encourages investigation as noted by **Binyam Mekonen**, a freshman computer science and engineering student. He writes, "We do research because it helps you learn more about stuff that you are curious about and figure out how things work. It's how people find answers and come up with better ways to do things." Similarly, for **Jordan Mensah,** Pre-Law/Criminology junior, "Summer research lets you explore a topic you're passionate about and connect it to the bigger picture, like how research can inform policy or impact real-world legal issues. For me, it's a way to dig into questions that matter and build a foundation for a future in law where evidence and curiosity drive change."

Michael De La Cruz, a freshman aerospace engineering student, echoes sentiments about the importance of being curious as a student researcher sharing, "Research is where the questions that you've always pondered are welcomed and explored. Students should do research so that they can see where their passions lie, where their mind flourishes. It allows you to learn so much about what you love and if you haven't figured out what your passion is, research is an amazing tool to see what you do and don't like. Research can be a start to a never-ending journey of pursuing your passions and that is worth too much to not experience."

Exploring scientific interests comes natural for some of our students as noted by **Aakari Redd** a sophomore neuroscience major shares, "I believe that being a part of research allows you to better understand science and place your trust in the information that researchers spend their lives analyzing. Additionally, I think that curiosity is a natural part of being human, so, research if a fun and useful way to apply that trait!" **Hulaye Diallo,** a sophomore in computer science and engineering echos this excitement, saying "Doing research allows you to see the world differently. All the modern privileges that are provided to us today are the result of numerous efforts made by people doing research. It has helped me be more appreciative and challenged me to think critically when solving problems."

Eunice Olusanya, a junior in psychology reveals the potential for research to afford us with opportunities saying "Undergraduate research is a good experience for those looking to expand their knowledge in their field of choice. It is also very rewarding, opening us up to many opportunities." Similarly, **Jelissa Milien-Ortiz**, freshman in nuclear medicine techonology notes "Students should engage in undergraduate research as it can provide them with lifelong set of skills, values, and never-ending opportunities. During the school year, we may not have enough time to engage in these activities."

Finally, **Dana Diaz,** a junior in Neuroscience, explains the power of research in personal growth and community building "Research is a way to truly find yourself and understand your strengths and weaknesses. It's a form of self-investment that helps you grow, not just for your own benefit, but so you can give something real back to the community."

-2025 CSTEP Summer Research Cohort

Steven Adebisi

HOMETOWN: Coram, NY
MAJOR: Computer Science
INTERNSHIP PLACEMENT: UB Blockchain Thinklab
SUMMER MENTOR: Dr. Bina Ramamurthy
SUMMER MENTOR TITLE: Teaching and Research Associate Professor
DEPARTMENT: Computer Science and Engineering
SUMMER PROJECT: *Tokenizing Educational Credentials with NFTs for Trust and Integrity*

ABSTRACT: The introduction of blockchain technology enables trustless systems where individuals maintain control over their digital assets. Non-Fungible Tokens (NFTs) and Fungible Tokens (FTs) offer a decentralized and tamper-proof way to represent educational and professional credentials. Traditional credential verification systems are centralized, slow, and prone to forgery. This research explores the implementation of a smart contract written in Solidity to tokenize course completions as NFTs and represent cumulative academic performance using FTs. The prototype will be deployed on an Ethereum test network using development tools such as Remix and Hardhat, with blockchain activity verified through block explorers like Etherscan. To evaluate the trustworthiness and resistance to fraud of this approach, the system will be tested against simulated attack vectors including credential duplication, private key compromise, and smart contract manipulation. Additionally, verification speed and accuracy will be compared to traditional methods such as manual transcript validation. This study aims to demonstrate that blockchain-based tokenization improves the security, transparency, and efficiency of academic credentialing, while also exploring broader applications for NFTs and FTs in digital identity and asset verification.

ACADEMIC AND CAREER GOALS: To obtain a Masters in Cybersecurity and become a Chief Information Security Officer
WORDS TO LIVE BY: "I too will obtain everything that I desire. Not because someone asked me to do it, but because I know in my heart that I have something worth fighting for."

Daija Brewer

HOMETOWN: Niagara Falls, NY
MAJOR: Biological Sciences
INTERNSHIP PLACEMENT: Department of Pediatrics
SUMMER MENTOR: Dr. Katelyn Carr
SUMMER MENTOR TITLE: Assistant Professor
DEPARTMENT: Pediatrics
SUMMER PROJECT: *The relationship between parent and child relative reinforcing value for screen time*

ABSTRACT: Excessive screen time has been recognized as a health risk, particularly with obesity, poor sleep, and reduced physical activity across all ages. One factor influencing children's behavior is parental behavior, through modeling and reinforcement. Many studies have explored the impact of screen time on health; however, few studies have examined the relative reinforcing value (RRV) of screen time, which measures the motivation to engage in screen time. This study investigates the correlational relationship between parental and children's RRV for screentime. Ten families have participated in an observational study; we anticipate 80 families. Participants earned points for either screen time or non-screen activities in a computer task measuring RRV, and screen and activity liking and preferences questionnaires. Parent and child RRV for screentime were not correlated (r=-0.0889, p value=0.807). We examined the correlation between child RRV and screen time; children with less screen time during the weekends find screen time more reinforcing (r= -0.4414, p value= 0.1741). We examined the correlation between parent and child self-reported screentime during weekdays, and we found a positive correlation (r=0.5252, p value=0.0971). This suggests that parent screen behavior influences child screen behavior, and child screen restrictions increase the child's reinforcing value for screen time.

ACADEMIC AND CAREER GOALS: To obtain a Medical Doctorate of of Obstetrics and Gynecology and become a gynecologist, helping advocate for underserved women and minorities.
WORDS TO LIVE BY: "Kill that urge to be chosen, choose yourself."- SZA

Sydney Brooks

HOMETOWN: Mount Vernon, NY
MAJOR: Chemistry
INTERNSHIP PLACEMENT: Morrow Lab
SUMMER MENTOR: Dr. Janet Morrow
SUMMER MENTOR TITLE: Distinguished Professor
DEPARTMENT: Chemistry
SUMMER PROJECT:*The Design and Synthesis of an Acylhydrazone-based Ligand, Nickel(II) and Cobalt(II) Metal-Organic Cage as a Possible ParaCEST Probe for MRI*

ABSTRACT:
Magnetic resonance imaging (MRI) is a non-invasive technique that uses contrast agents (CAs) to enhance and distinguish pathological tissues from normal ones. Clinically used gadolinium-based contrast agents (GBCAs) have been linked to adverse health effects due to long-term tissue retention. Research in the Morrow Lab focuses on developing MRI contrast agents using biologically relevant first-row transition metal-based complexes as potential alternatives. One viable alternative focuses on paraCEST (paramagnetic Chemical Exchange Saturation Transfer), a technique that uses paramagnetic complexes with exchangeable protons to generate image contrast. Traditionally, complexes based on macrocyclic ligands have been used; there has been a recent shift toward the use of metal–organic cages for their enhanced functionality. This project involves the synthesis of an M_6L_4 metal–organic cage and a simple ML_2 analogue for studying the properties of the cage on a smaller scale. The ligands and their metal–organic cages were synthesized and characterized using mass spectrometry and nuclear magnetic resonance (NMR) spectroscopy. Crystalline samples were prepared for structure determination by single-crystal X-ray diffraction (XRD). This research supports the development of alternative contrast agents (CAs) for MRI by aiming to prepare paraCEST-active anionic cages to address the limited water-solubility of metal-organic cages.

ACADEMIC AND CAREER GOALS: My goal is to obtain my Doctorate and become a dedicated professional who works to reduce the stigma surrounding mental health disorders, while fostering open communication, empathy, and understanding within communities.
WORDS TO LIVE BY: "Honor the struggle because it's in the struggle where growth happens."

Elizabeth Camacho

HOMETOWN: Bronx, NY
MAJOR: Psychology
INTERNSHIP PLACEMENT: The Behavioral Neuroendocrinology Lab at UB
SUMMER MENTOR: Dr Matthew Paul
SUMMER MENTOR TITLE: Associate Professor
DEPARTMENT: Psychology
SUMMER PROJECT: *The role of Pubertal Hormones in Regulating Vasopressin in the Lateral Habenula*

ABSTRACT: Adolescence marks a period of significant change. The brain continues to develop, leading to changes in behavioral and cognitive capabilities. However, these neural changes increase susceptibility to mental illnesses, including anxiety and depression. Hence, it is important to understand the factors regulating neural development during this critical phase. Vasopressin is a neuropeptide that regulates social behavior across numerous species, including humans. The vasopressin pathway that projects to the lateral habenula (LHb) continues to develop during adolescence and is sensitive to changes in gonadal steroids, such as testosterone and estradiol. Our hypothesis is that the rise in pubertal gonadal hormones promotes the development of this pathway during adolescence. To test this hypothesis, male Siberian hamsters were castrated (n=7) or sham-operated (n=7) prior to puberty (15 days of age), and brains were collected in adulthood (85±5 days of age) to determine whether prepubertal castration prevents this increase of vasopressin in the LHb. Brain tissue was processed using immunohistochemistry, and vasopressin fiber density was quantified in the LHb. These findings will contribute to our understanding of how pubertal hormones shape brain organization, providing a deeper understanding of the factors regulating adolescent neural development.

ACADEMIC AND CAREER GOALS: I plan to apply to the Early Assurance Program this upcoming year to secure admissions to UBMED, with the goal of attending medical school immediately after my undergraduate studies and exploring a variety of specialties.
WORDS TO LIVE BY: "May the flowers remind us of why the rain was necessary."

Paris-Riana Campbell

HOMETOWN: Albany, NY
MAJOR: Computer Engineering
INTERNSHIP PLACEMENT: Department of Mechanical Engineering
SUMMER MENTOR: Dr. Ehsan Esfahani
SUMMER MENTOR TITLE: Associate Professor
DEPARTMENT: Mechanical Engineering
SUMMER PROJECT:*Optimizing the Prompting Structure Based on Human Individuality and cognitive engagement to Enhance Human-AI Teamwork*

ABSTRACT:
In human-AI interaction, both the human and AI should work toward a shared goal. When human commands are not possible, the AI should provide feedback to explain its reasoning, especially for non-compliance. Giving too much feedback can overload the human and cause disengagement, while too little can reduce trust and interaction quality. So the system should adjust the amount of feedback to keep the human engaged. It should also consider individual differences and cognitive state to support more effective communication. In this project, we use a pre-trained large language model to abstract mission data and give realtime feedback. The prompting structure is designed to summarize task info based on the human's current state. We investigate two questions: (1) how to include engagement signals from physiological data (like brain activity and eye movement) that aren't always numerical? and (2) which human traits matter most for effective AI dialogue (like acceptability, etc.). We evaluate the system using NASA pilot data and standard text summarization metrics. A statistical analysis is also done to see how engagement type (directional vs numeric) and individual traits affect performance. Results will help design better human-AI feedback systems for real missions.

ACADEMIC AND CAREER GOALS: I plan to achieve a PhD in Computer Engineering and research human and AI communication for improving the human physiological state. I also plan to utilize these skills to create a non-profit that utilizes AI- algorithms to help people overcome unhealthy addiction, harmful lifestyle choices and depression.
WORDS TO LIVE BY: "Float like a butterfly, sting like a bee." -Muhammad Ali

Nyah Cardona

HOMETOWN: Saint Albans, NY
MAJOR: Mechanical Engineering
INTERNSHIP PLACEMENT: Sound & Vibrations Laboratory
SUMMER MENTOR: Dr. Mostafa Nouh
SUMMER MENTOR TITLE: Associate Professor
DEPARTMENT: Mechanical & Aerospace Engineering
SUMMER PROJECT: *Physical Realization of a Tuned Mass Dampener (TMD) System*

ABSTRACT: Machines exhibit erratic vibrations when the operating frequency matches the natural frequency of the machine, a phenomenon defined as resonance. The uncontrollably high vibration magnitude taking place due to this alignment of frequencies causes irreversible damage and impairs the lifespan of these machines. To mitigate these resonant vibrations, Tuned Mass Dampers Systems (TMDs) are implemented, which aim to strategically absorb the vibrations from the main body of the machine at critical frequency, by adding a tuned secondary component. Through the development of a TMD model that operates at lower frequencies, the motion of these systems can be analyzed for data acquisition. The TMD is modeled as an undamped lumped parameter system with a point mass and a stiffness element. Using compression springs inserted into 3D printed carts attached to a shaker, the carts are excited to their resonant frequencies and data recorded. This research aims to find significant changes in the motion of the model without special equipment and illustrate the vibration absorption mechanism. The model will aid as a tool for data collection and educational purposes. With further modifications, other possible systems can be modeled and measured. This will allow further understanding of the applications of vibrations.

ACADEMIC AND CAREER GOALS: To obtain my Bachelor's in Mechanical Engineering and apply my coursework to creating solutions for problems in various fields. To go and work wherever I'm needed, whether its civil or robotics or to education.
WORDS TO LIVE BY: "You learn more about yourself when observing and studying the world and people around you."

Michael De La Cruz

HOMETOWN: Schenectady, NY
MAJOR: Aerospace Engineering
INTERNSHIP PLACEMENT: UB Nanosatellite Laboratory
SUMMER MENTOR: Dr. John Crassidis
SUMMER MENTOR TITLE: Samuel P. Capen Chair, Professor
DEPARTMENT: Mechanical and Aerospace Engineering
SUMMER PROJECT: *Design and Deployment of a High-Altitude Balloon Payload for Atmospheric Pollution Monitoring Over Western New York*

ABSTRACT: Urban and industrial emissions are increasingly impacting air quality, making it vital to understand pollution distribution across altitudes. Traditional ground-based systems have limited resolution which leads to difficulties in identifying the pollutants in the atmosphere. To address this, our mission was to use a high-altitude balloon to gain a more detailed understanding of pollution distribution across altitudes. We developed a payload controlled by an Arduino Uno R4 Minima microcontroller. To accurately measure the atmospheric pollution across different altitudes, we needed to measure the UV penetration, temperature, atmospheric pressure, altitude, and ozone concentration throughout the flight. We used UV sensors, a barometer, a temperature sensor, and a parts per million sensor to collect our data. All data was time-stamped and stored on a micro-SD and the system ran autonomously throughout the flight. The high-altitude balloon payload provided results that we used to model the atmospheric pollution. Its flight was determined by lower atmospheric winds and jet stream winds. Though constrained by wind-determined trajectories, balloon missions gather high resolution atmospheric data beyond the reach of ground-based systems.

ACADEMIC AND CAREER GOALS: To obtain a master's degree in mechanical design and manufacturing and to obtain a commercial pilot's license and start up my own business." "To become a design engineer and work on research and development in aircraft and spacecraft.
WORDS TO LIVE BY: "Where God guides, He provides." (Isaiah 58:11) - The Bible

Hulaye Diallo

HOMETOWN: Bronx NY
MAJOR: Computer Engineering
INTERNSHIP PLACEMENT:Computational and Equity Lab at UB(cUBe Lab)
SUMMER MENTOR:Dr. Kenneth Joseph
SUMMER MENTOR TITLE: Associate Professor
DEPARTMENT: Computer Science and Engineering
SUMMER PROJECT: *A National Analysis on US Influencer's political expression and links to misinformation From 2020-2023 on Twitter*

ABSTRACT: Influential figures produce the majority of content on social media. [1] These "influencers shape their follower's opinions, behaviors or purchasing decisions." [2] While these digital creators have a growing impact on society, there is a lack of research on the types of content that they produce. The influencer market for advertising in the US currently stands at an estimate of 10 billion dollars. These creators are being invested into for a reason, the reason we stand to examine is if that reason is political. Previous works have been done to analyze political talk on Twitter users as a while and influential figures but not influencers. What constitutes as an influencer is another question we will address. This work aims to answer overall, how often did influencers engage in political talk from 2020-2023 in the US? We trained a classifier using keywords that we deemed constituted as political talk. This classifier was then applied to a longitudinal dataset of American influencer tweets on X(formerly known as Twitter). Understanding how and when influencers talk about politic will allow further analysis on the credibility, motivation and reach of influencers political messages.

ACADEMIC AND CAREER GOALS: To obtain my master's in Computer Science and Engineering and to become a software engineering after.
WORDS TO LIVE BY: "Who are you when not performing for those in your mind?"

Dana Diaz

HOMETOWN: Long Island, NY
MAJOR: Neuroscience
INTERNSHIP PLACEMENT: Jacobs School of Medicine and Biomedical Sciences
SUMMER MENTOR: Dr. John C. Panepinto
SUMMER MENTOR TITLE: Professor, Senior Associate Dean for Biomedical Education
DEPARTMENT: Microbiology & Immunology
SUMMER PROJECT: *Studying an Alternate eIF4G in Cryptococcus neoformans*

ABSTRACT: Translation initiation is a critical step in protein synthesis, primarily regulated by the eIF4F complex, which includes eIF4E, eIF4A, and eIF4G. While organisms often express multiple eIF4G scaffold proteins, our lab identified a second homolog in Cryptococcus neoformans named Afg1, which contains a unique N-terminal extension and may form a distinct eIF4F-like complex. We are investigating when and how Afg1 is utilized and how it contributes to translation under stress. Using gene deletion, HA-tagging, RNA immunoprecipitation, and ribosome profiling, we examined Afg1 expression, its mRNA targets, and its behavior under elevated temperatures. We found that Afg1-bound mRNAs are enriched for mitochondrial function. Deletion of canonical eIF4G increases stress sensitivity, while deletion of Afg1 enhances heat resistance. Additionally, Afg1 produces two isoforms through alternative start sites and intron retention. Only the longer isoform is expressed at 37°C, suggesting temperature-dependent regulation. These results indicate that Afg1 may participate in a specialized translation initiation mechanism, helping C. neoformans adapt to host-like stress. This work provides insight into how this pathogen regulates gene expression under environmental pressure.

ACADEMIC AND CAREER GOALS: My goal is to continue my education and pursue a PhD, with a focus on drug pathology and drug development. I aim to contribute meaningful research to the scientific community while also serving as a role model for what is possible for underrepresented Latina women in STEM.
WORDS TO LIVE BY: "What you're not changing, you're choosing. Growth requires getting comfortable with being uncomfortable."

Vera Frimpong

HOMETOWN: Queens, NY
MAJOR: Nursing
INTERNSHIP PLACEMENT: School of Nursing
SUMMER MENTOR: Dr. Carleara Weiss, MS, RN
SUMMER MENTOR TITLE: Assistant Professor
DEPARTMENT: Nursing
SUMMER PROJECT: *Investigating Sleep and Blood Biomarkers of Neurodegeneration in Older African American Adults*

ABSTRACT: African Americans face a higher risk for neurodegeneration and Alzheimer's disease, when compared to Caucasian and other ethnicities, yet face a 65% lower chance of early diagnosis. Studies indicate that sleep disturbances negatively impact brain function and increase the risk for AD. However, little is known regarding biomarkers of neurodegeneration in older African Americans with sleep disturbances. A secondary analysis is being conducted using data from the VITAS Study (Weiss Lab). The VITAS Study focuses on older adults aged 65 to 85 with sleep disturbances and collects serum samples to explore biomarkers of neurodegeneration, such as brain-derived neurotrophic factor (BDNF)and amyloid-beta (Aβ). A subset sample composed of African American participants is being used for this secondary analysis. Blood samples (20 mL) are collected and centrifuged to isolate plasma for specific biomarkers known to play a role in brain changes related to Alzheimer's. The VITAS study is ongoing. Currently, the Weiss Lab is working on enrollment and data collection. We are exploring potential correlations between irregular sleep and biomarker levels that could show early detection of neurodegeneration. This study highlights the potential of sleep as a factor that can be changed to improve brain health in older African American adults.

ACADEMIC AND CAREER GOALS: To obtain a Doctor of Nursing Practice (DNP) degree and start my own practice.
WORDS TO LIVE BY: "With God ,all things are possible."

Vida Frimpong

HOMETOWN: Queens, NY
MAJOR: Biological Sciences
INTERNSHIP PLACEMENT: School of Public Health and Health Professions
SUMMER MENTOR: Dr. Nathaniel Woodard
SUMMER MENTOR TITLE: Assistant Professor
DEPARTMENT: Community Health and Health Behavior
SUMMER PROJECT: *Parent Engagement and Cultural Responsiveness in a School-Based Mental Health Program for Black Students in Buffalo*

ABSTRACT: Black elementary school students in urban areas face disproportionate exposure to adverse social determinants of health (SDOH), which contribute to elevated mental health risks and limited access to culturally affirming care. Our current research is part of a broader school-based mental health intervention piloted in Buffalo Public Schools. The project is guided by a Multi-Tiered Systems of Support (MTSS) framework and seeks to explore how culturally responsive strategies and parent engagement can support the design and implementation of sustainable interventions that promote mental health equity. My work specifically examines how parent voice and community values can shape intervention design. I have contributed to the development of interview questions, parent surveys, daily affirmations, and participant recruitment flyers. While data collection is still in progress, this phase of the research emphasizes co-design and community-informed practices, laying the groundwork for deeper qualitative insights through stakeholder interviews. This research will help further our understanding of how culturally affirming and family-inclusive practices can support the mental health of Black students. Findings will guide future improvements to the intervention and contribute to reducing mental health disparities in school settings.

ACADEMIC AND CAREER GOALS: To obtain an MD and become a physician specializing in women's health, with a focus on advancing health equity and addressing cancer disparities among underrepresented populations.
WORDS TO LIVE BY: "I can do all things through Christ who strengthens me." – Philippians 4:13

Beteal Hadush

HOMETOWN: Buffalo, NY
MAJOR: Psychology
INTERNSHIP PLACEMENT: Child Health and Behavior Lab, Department of Pediatrics
SUMMER MENTOR: Dr. Stephanie Anzman-Frasca
SUMMER MENTOR TITLE: Associate Professor
DEPARTMENT: Department of Pediatrics
SUMMER PROJECT: *Caregiver Perspectives on How Pediatricians Can Promote Healthy Eating Behaviors in Early Childhood*

ABSTRACT: Early childhood eating habits predict longer-term nutrition and health. This project explores caregiver perspectives on how pediatricians can better assist families in promoting healthy eating behaviors and identifies tools caregivers would find most helpful. We analyzed qualitative data from parents and guardians participating in the Toddler Tastes Study, a study evaluating vegetable acceptance interventions among toddlers ages 18-36 months. The focus is on a subsample of families who completed post-intervention interviews to date (N=20 families; 40% lower-income; 40% with male children, 60% female). Ongoing coding and analysis focus on responses to questions about caregiver preferences and recommendations for pediatric nutrition guidance. Emerging themes include a need for engaging and accessible online resources, fun strategies for food tastings, and time-efficient ways to apply nutritional advice in real-life settings. This project aims to identify specific ways pediatricians can make nutrition guidance more useful and realistic for families, recognizing barriers in clinical care such as limited appointment time and lack of practical resources. Findings will be used to begin designing and testing communication tools that are practical, evidence-based, and tailored to family needs, in an effort to support healthier eating behaviors in early childhood.

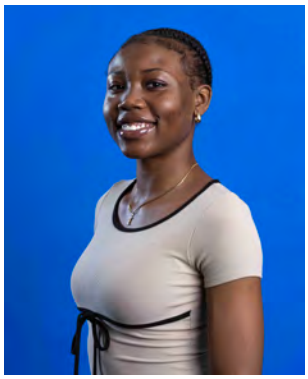
ACADEMIC AND CAREER GOALS: To obtain a master's degree in Mental Health Counseling and to become an Adolescent Therapist.
WORDS TO LIVE BY: John 13:7: "What I am doing you do not understand now, but later you will understand."

Malacchi Johnson

HOMETOWN: Buffalo, NY
MAJOR: Biological Sciences and Biomedical Engineering
INTERNSHIP PLACEMENT: Regenerative Biomaterials and Therapeudics
SUMMER MENTOR: Dr. Debanjan Sarkar
SUMMER MENTOR TITLE: Associate Professor
DEPARTMENT: Biomedical Engineering
SUMMER PROJECT: *Synthesis and Characterization of Fe-EDTA Aggregated Colloidal Gels*

ABSTRACT: Colloidal gels are soft materials formed by the aggregation of dispersed particles into a percolated network, typically through tunable interparticle interactions. In this study, we investigate the formation and characterization of polyurethane-based ionomeric colloids treated with chelating agents to induce controlled aggregation. Specifically, colloidal suspensions composed of cationic polyurethane particles were treated with complexes of iron and ethylenediaminetetraacetic acid (EDTA) using either ferrous (Fe^{2})-EDTA or ferric (Fe^{3})-EDTA complexes to modulate gelation behavior. The aggregation process was influenced by varying the particle weight fraction and the ionic composition of the medium. Confocal microscopy was employed to visualize the resulting microstructures as a function of particle concentration. These colloidal gels were examined as delivery vehicles for iron which can be released from the colloidal gel. Results show that colloidal gels can release iron and the release kinetics is dependent on the gel composition. This study provides initial insights into the physicochemical behavior and long-term integrity of metal-coordinated colloidal gels. These materials show promise for biomedical applications such as injectable scaffolds, wound adhesives, or drug delivery platforms following further biofunctional characterization.

ACADEMIC AND CAREER GOALS: To obtain a terminal degree in Biomedical Engineering and positively impact the community.
WORDS TO LIVE BY: "The seed you sow is what you shall reap; He whom suffers, conquers winning the crown of victory in the end."



Ebony Lawrence

HOMETOWN: Bronx, NY
MAJOR: Computer Science
INTERNSHIP PLACEMENT: Department of Computer Science and Engineering
SUMMER MENTOR: Dr. Ramalingam Sridhar
SUMMER MENTOR TITLE: Associate Professor
DEPARTMENT: Computer Science & Engineering
SUMMER PROJECT: *Fall Dection Uusing Smartphone IMU Sensors*

ABSTRACT: Falls are a leading cause of injury and death among the elderly, with an estimated 684,000 fatal cases reported annually. While several fall detection systems exist such as wearable, vision-based, and ambient sensor systems they often come with trade-offs related to cost, privacy, and ease of use. This project proposes a smartphone-based fall detection system that utilizes the device's built-in inertial measurement unit (IMU) sensors to monitor human movement. To evaluate its effectiveness, data was collected from a diverse group of ten participants aged 18 to 23, including both males and females of various racial and ethnic backgrounds (Black, Hispanic, and African) and body types. Participants performed a series of simulated falls and Activities of Daily Living (ADLs), with movement data recorded using the Sensor Log app. The raw sensor data was filtered and normalized, then used to train and test machine learning algorithms for classifying falls versus non-falls. Once a fall is detected, the system is designed to send real-time alerts to caregivers or medical professionals. This research contributes to the development of a more accessible and accurate fall detection system, that minimizes false alarms and provides timely alerts to improve response and outcomes.

ACADEMIC AND CAREER GOALS: To explore a career in Artificial Intelligence, focusing on machine learning research, and potentially pursue a PhD in Computer Science.
WORDS TO LIVE BY: "No matter the obstacles, you can overcome anything you set your mind to. With faith in God and a heart full of drive, what's meant for you will never miss you it will work out in His perfect time."

Trey Lewis

HOMETOWN: Brooklyn, NY
MAJOR: Neuroscience
INTERNSHIP PLACEMENT: Department of Neurology
SUMMER MENTOR: Dr. Thomas Covey
SUMMER MENTOR TITLE: Assistant Professor
DEPARTMENT: Department of Neurology
SUMMER PROJECT: *Identifying Neural Markers of Cognitive Decline in Multiple Sclerosis*

ABSTRACT: Cognitive impairment is reported in Multiple Sclerosis (PwMS) patients. However, multisensory processing - involving the integration of information across visual and auditory sensory modalities - has been unexplored in literature on MS cognition. Nevertheless, cognitive performance in daily activities is often multisensory in nature and highly relevant to clinical outcomes. This study obtained neural indices of multisensory processing during target detection in PwMS. PwMS and healthy control participants completed an audio-visual processing task with target and non-target visual stimuli (blue/red circles) and auditory stimuli (high/low tones). Visual and auditory stimuli were presented in isolation (unisensory) or together (multisensory). Event-related potentials (ERP) were obtained for each category. Results revealed that P3 amplitude was attenuated in MS compared to controls for unisensory target trials. For multisensory trials with both an auditory and visual target presented simultaneously, PwMS demonstrated an attenuated, delayed P3 component compared to controls. PwMS also exhibited a P3 component that was delayed, but elevated in amplitude compared to controls on multisensory trials where there was simultaneous presentation of target and non-target stimuli (thus generating multisensory conflict). The findings indicate generalized disturbances in the neural response during target detection, and compensatory processing during multisensory conflict, in PwMS compared to controls.

ACADEMIC AND CAREER GOALS: To obtain a PhD in Neuroscience and conduct research.
WORDS TO LIVE BY: "I keep my eyes always on the LORD. With him at my right hand, I will not be shaken."

Allyson Lunarejo

HOMETOWN: Port Chester, NY
MAJOR: Neuroscience
INTERNSHIP PLACEMENT: Jacobs School of Medicine and Biomedical Sciences
SUMMER MENTOR: Dr. Sergio Dominguez Lopez
SUMMER MENTOR TITLE: Assistant Professor
DEPARTMENT: Pharmacology and Toxicology
SUMMER PROJECT: *Identifying Adaptive Changes in Nociception in Central Brain Circuitry*

ABSTRACT: A significant barrier to developing safe pain treatments is our limited understanding of how pain perception is processed across the brain. Our lab aims to overcome this challenge by creating a comprehensive, brain-wide map of activated neuronal ensembles that encode pain perception. For this, we utilized the Targeted Recombination in Active Populations (TRAP) mouse model, which enables the permanent genetic tagging of activated neuronal circuits expressing cFos with a red fluorescent protein (tdTomato). We used the formalin test to induce nociceptive stimulation, scoring behavioral and neuronal responses in FosTRAP mice. To understand how analgesics modify pain perception, we treated some mice with Carprofen, a nonsteroidal anti-inflammatory drug, and others with saline. A week later, we obtained coronal brain sections and processed them for fluorescence microscopy using AI-assisted brain atlas registration and cell counting. In this preliminary study, we identified neuronal ensembles that encode pain in key brain regions, including the periaqueductal gray, the raphe nuclei, and the ventral tegmental area. We plan to develop a functional neuronal map using this data to illustrate how pain is processed in the brain and how this perception changes during analgesia. This map will serve as a valuable reference for developing new analgesic methodologies.

ACADEMIC AND CAREER GOALS: To obtain a Master's degree in Physician Assistant Studies and become a certified PA, with the goal of increasing access to quality healthcare in underserved communities.
WORDS TO LIVE BY: "Take Chances, Make Mistakes, Get Messy"- Miss Frizzle

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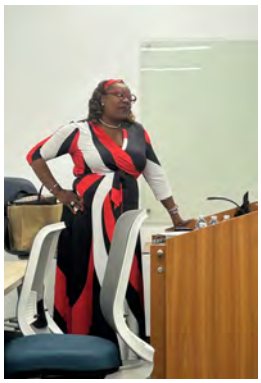



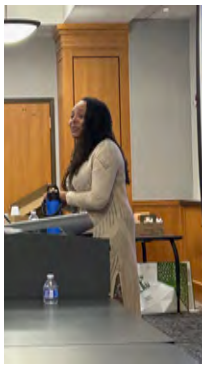




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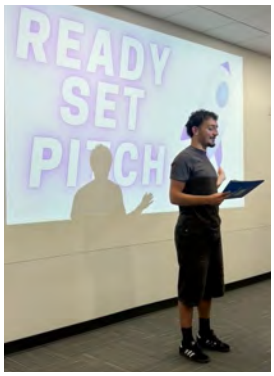
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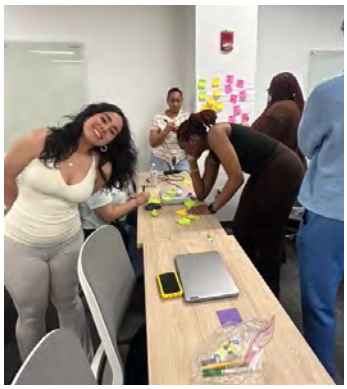








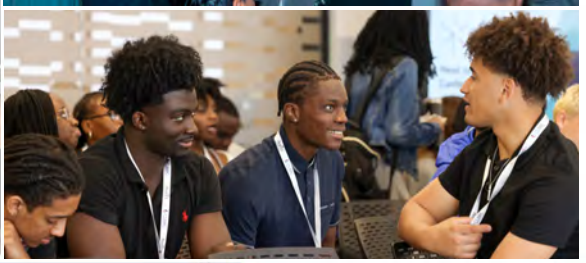
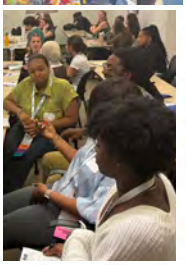



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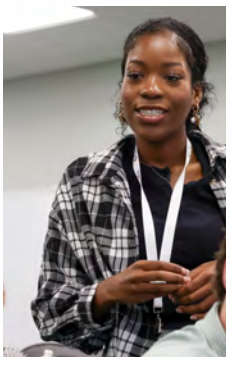


Binyam Mekonen

HOMETOWN: Rochester, NY
MAJOR: Computer Science
INTERNSHIP PLACEMENT: Dr. Lyu Lab
SUMMER MENTOR: Dr. Siwei Lyu
SUMMER MENTOR TITLE: SUNY Distinguished Professor, SUNY Empire Innovation Professor
DEPARTMENT: Computer Science & Engineering
SUMMER PROJECT: *Comparative Evaluation of Deepfake Detection Models*

ABSTRACT: Deepfakes are synthetic media generated using Generative Adversarial Networks (GANs) and have become exponentially realistic over the past few years. They pose major threats to privacy, media integrity, and public trust. Several image-based detection models are used to test the deepfakes which contain AI-detecting techniques such as but not limited to Chameleon, Attention-Based Multi-Scale Feature Fusion (AMSFF) and Convolutional Neural Networks (CNN). This research consistently tests these detection models with synthetic media to determine the accuracy of detecting deepfakes. CNNs are widely used to detect unnatural textures, lighting, or inconsistencies in facial features. This research used the StyleGAN dataset and tested all the models such as AI-generated Image Detector with Hybrid Features (AIDE) which combines CNNs with other attention mechanisms. Each model was scored based on accuracy, false positives/negatives, and processing speed. Most models performed well on familiar inputs but struggled with altered or unfamiliar content. Performance varied, with some models showing reduced accuracy or technical issues like freezing or missed detections. While current detection tools show promise, improvements are needed. Adding a final verdict label and optimizing the model speed could make detection systems more practical and user-friendly.

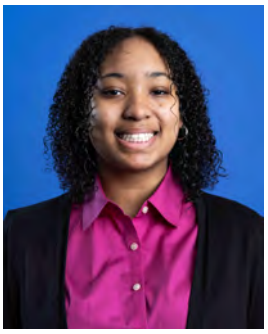
ACADEMIC AND CAREER GOALS: To work at Google and create or help create a new program which helps the world.
WORDS TO LIVE BY: "Smile through the challenges."

Jordan Mensah

HOMETOWN: Bronx, NY
MAJOR: Criminal Justice
INTERNSHIP PLACEMENT: Buffalo City Court
SUMMER MENTOR: Judge Rashied Mcduffie
SUMMER MENTOR TITLE: Buffalo City Court Judge
DEPARTMENT: NYS Unified Court System
SUMMER PROJECT: *Assessing the Impact of Prompt Access to Police Body Camera Footage for Defendants in Felony Hearings*

ABSTRACT: Body-worn cameras (BWCs) have become a routine part of police work, often capturing crucial evidence during arrests and interactions. While prosecutors usually have access to this footage early on, defense teams, especially in felony cases, are often left waiting. This delay can put defendants at a disadvantage during critical stages like preliminary hearings or bail arguments. My research explores whether defendants in felony cases should have faster access to footage and what impact that might have on fairness, legal rights, and trial outcomes. I conducted a mix of legal research and court observation in the Buffalo City Court. Findings indicate that there is not a standard timeline requirement for footage to reach defense teams, affecting information available at hearings. Lack of access impacts challenges to the police narrative. Research has shown that in areas where early access is the norm, courts report fewer delays and smoother pretrial proceedings. Timely access to BWC footage is critical, especially in high-stake felony cases. This research shows that providing 'access to BWC footage within a short, consistent time frame, such as five days, would improve transparency, reduce delays, and help balance the scales between prosecution and defense.

ACADEMIC AND CAREER GOALS: To attend law school and become an attorney advocating for those whose voices are often unheard, while building a career focused on justice, advocacy, and making a meaningful impact in people's lives.
WORDS TO LIVE BY: "Sometimes a setback is just a setup for a comeback- every loss holds a lesson that can push you toward something greater."

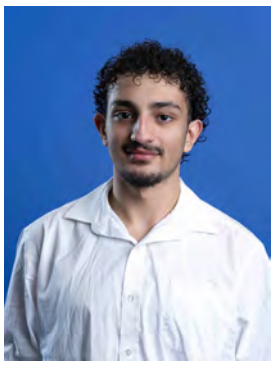


Jelissa Milien-Ortiz

HOMETOWN: Bronx, NY
MAJOR: Nuclear Medicine Technology
INTERNSHIP PLACEMENT: Clark Lab
SUMMER MENTOR: Dr. Stewart D. Clark
SUMMER MENTOR TITLE: Associate Professor
DEPARTMENT: Pharmacology & Toxicology
SUMMER PROJECT: *Neuropeptide Receptor S (NPSR) Antagonist RTI-118 In Curbing Opioid Intake/Seeking*

ABSTRACT: Opioid Use Disorder has far reached consequences for individuals, families, and communities. Neuropeptide S receptor (NPSR) has been implicated in different models of drug abuse. Neuropeptide S (NPS) is an endogenous peptide that acts as a neurotransmitter in activating NPSR. When exogenously administered, NPS causes hyperlocomotion, decreases palatable food intake, reinforces drug-seeking behavior, and produces anxiolytic-like effects in rodents. Previous studies have shown the NPSR antagonist RTI-118 curbs cocaine-seeking behavior in rats. In this study, we test the hypothesis that RTI-118 will curb opioid intake/seeking behavior. Rats underwent testing through intermittent Access (IntA), Threshold Assay (THR), and relapse testing on day 15 of Abstinence. IntA results indicate RTI-118 produced a strong reduction in drug seeking behavior; however, these findings were not statistically significant. In THR, RTI-118 treatment significantly decreased oxycodone seeking behavior. Pretreatment of RTI-118 significantly decreased oxycodone seeking during a relapse test on day 15 of abstinence. Our results suggest that the NPSR Antagonist RTI-118 may be a new therapeutic for treating opioid use disorders.

ACADEMIC AND CAREER GOALS: To become a Nuclear Medicine Technologist, become trained in other scanning modalities, and opening my own clinic.
WORDS TO LIVE BY: "Always work hard and have fun in what you do because I think that's when you're more successful. You have to choose to do it." ~ Simone Biles



Sammy Odeh

HOMETOWN: Lindenhurst, NY
MAJOR: Computer Science
INTERNSHIP PLACEMENT: Computation and Equity Lab at UB
SUMMER MENTOR: Dr. Kenneth Joseph
SUMMER MENTOR TITLE: Associate Professor
DEPARTMENT:Computer Science
SUMMER PROJECT: *How do gender and age influence the types of social support received by users in appearance focused subreddits*

ABSTRACT: Reddit, a popular social media platform and forum-style website contains many different subcommunities in which users engage in a variety of content. Subreddits like r/RateMe, r/RoastMe, and r/ToastMe allow users to post photos of themselves and receive feedback from others. This project investigates how age and gender shape the types of social support users receive in these appearance focused communities. We categorized comments into four support types: Emotional (care and affirmation), Instrumental (tangible help), Informational (resources), and Appraisal (feedback for self-evaluation). A dataset of 600 manually labeled Reddit comments was used to fine-tune a BERT model for automatic classification and our analysis revealed that younger women tend to receive more emotional support, while younger men are more likely to receive appraisal-based comments. These findings shed light on how identity influences social interaction online, and suggest that even in anonymous spaces, social norms around age and gender continue to shape how people connect and care for each other online.

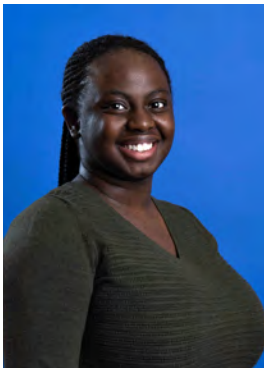
ACADEMIC AND CAREER GOALS: To obtain a PhD in computer science and become an A.I Professor.
WORDS TO LIVE BY: "Start where you are. Use what you have. Do what you can."

Eunice Olusanya

HOMETOWN: Staten Island, NY
MAJOR: Psychology
INTERNSHIP PLACEMENT: Laboratory of motivation and addiction
SUMMER MENTOR: Dr. Paul J. Meyer
SUMMER MENTOR TITLE: Associate Professor
DEPARTMENT: Psychology
SUMMER PROJECT: *The Effect of Psilocybin on the Choice Between Nicotine and a Social Reinforcer*

ABSTRACT: This project examines whether the choice of nicotine or social interaction is affected by the administration of psilocybin. Psilocybin is a hallucinogenic psychedelic that has been shown to have therapeutic properties in humans, and is expected to influence the choice between nicotine and social reinforcer. A total of 36 male and female Sprague Dawley rats were tested in this study, 24 subject rats and 12 stimulus rats. Each subject rat was surgically implanted with a catheter in their jugular vein for drug self-administration. Rats were in training to acquire nicotine in five 40-minute sessions, and then trained to acquire nicotine self-administration in eight two-hour sessions. Rats were then tested in discrete choice trials where they chose between nicotine and a social reinforcer. After learning that they were given an option, a delay was introduced. Each time a choice was made, the rats had to wait longer for each reinforcer that they chose. The results are not clear yet, it is anticipated that rats will choose social interaction over nicotine after administration of psilocybin. This study will help researchers and doctors determine whether psilocybin can be effective in therapy for humans who are trying to quit smoking.

ACADEMIC AND CAREER GOALS: To obtain a PhD in Clinical Psychology and own my own clinic.
WORDS TO LIVE BY: "Trust the path you choose and it will not abandon you, even in darkness" -Nana Amissah



Opeyemi Omoboye

HOMETOWN: Yonkers, NY
MAJOR: Computer Engineering
INTERNSHIP PLACEMENT: Department of Computer Science and Engineering
SUMMER MENTOR: Dr. Wenyao Xu
SUMMER MENTOR TITLE: Professor and Associate Department Chair
DEPARTMENT: Computer Science & Engineering
SUMMER PROJECT: *FPGA-Based Real-Time Audio Processing for Voice-Activated Systems*

ABSTRACT: Voice-activated technology is an essential tool for improving accessibility for individuals with physical or visual impairments by enabling hands-free interaction with devices. These systems require efficient, low-latency audio processing to convert speech into text or commands. Traditional software-based audio processing consumes significant power and uses sequential processing. This research explores the use of Field Programmable Gate Arrays (FPGAs) as a hardware platform for real-time audio processing. The project uses Verilog to implement an audio processing pipeline on an FPGA. Recorded audio files are converted and loaded into Block RAM. A Finite Impulse Response (FIR) filter removes noise and conditions the audio signals, followed by a Fast Fourier Transform (FFT) to convert signals to the frequency domain. Mel-frequency cepstral coefficient (MFCC) features are extracted from the FFT output for speech recognition. These features are then classified using FPGA logic, enabling efficient, real-time audio processing for voice-activated systems. The goal is to develop a low-latency, energy-efficient FPGA-based audio pipeline. FPGA hardware is expected to outperform software methods by enabling parallel processing and reducing computational inefficiencies. This research will advance understanding of FPGA-based audio processing and support design of more responsive, accessible voice-activated systems that enhance quality of life for users with disabilities.

ACADEMIC AND CAREER GOALS: To obtain a Masters in Computer Engineering and work as a avionics engineer.
WORDS TO LIVE BY: “Pride goes before destruction and a haughty spirit before a fall." (Proverbs 16:18)

Martins Oyebanji

HOMETOWN: Brooklyn, NY
MAJOR: Biological Sciences
INTERNSHIP PLACEMENT: Jacobs School of Medicine and Biomedical Sciences
SUMMER MENTOR: Dr. Dheeraj Roy
SUMMER MENTOR TITLE: Assistant Professor
DEPARTMENT: Physiology and Biophysics
SUMMER PROJECT: *Modeling Epileptic Activity in Cortical Organoids Using Pilocarpine*

ABSTRACT: Epilepsy is a neurological disorder that affects over 50 million people around the world. This disorder causes recurrent seizures due to increased brain activity. While animal models, such as mice and rats, are commonly used to study neurological conditions, they do not fully replicate all the functions of the human brain. In this study, we divided cortical organoids, which are small, self-organized 3D structures that model the activity of the human cortex, into two groups. One group was incubated in a solution of pilocarpine, while the other served as the control group, incubated in saline. We anticipate that the organoids that were placed in pilocarpine will display much more neural activity compared to the control group, which we expect to show normal/lower activity. This research will enable us to gain a deeper understanding of the human brain and help test treatment options for epilepsy and other neurological disorders. Additionally, the use of organoids is both ethically and scientifically beneficial by reducing the use and sacrifice of rodents in experiments and providing a more accurate model of human brain function.

ACADEMIC AND CAREER GOALS: To pursue a Doctorate in Medicine and practice as a physician.
WORDS TO LIVE BY: "And we know that in all things work together for the good of those who love God, to those who are called according to His purpose."

Aakari Redd

HOMETOWN: Freeport, New York
MAJOR: Neuroscience
INTERNSHIP PLACEMENT: Clark Lab
SUMMER MENTOR: Dr. Stewart D. Clark
SUMMER MENTOR TITLE: Associate Professor
DEPARTMENT: Department of Pharmacology & Toxicology
SUMMER PROJECT:: *Using Magnetic Resonance Imaging (MRI) to Analyze the Midbrain and Pons in a Preclinical Model of Progressive Supranuclear Palsy Richardson's Syndrome (PSP-RS)*

ABSTRACT: Progressive Supranuclear Palsy-Richardson's Syndrome (PSP-RS) is a rare tauopathy often misdiagnosed as Parkinson's disease (PD) due to overlapping symptoms like bradykinesia, recurrent falls, and postural instability. PSP-RS has transient response to dopaminergic medications typically used for PD, leaving patients without effective treatments. Absence of an animal model of PSP-RS further hinders efforts to create treatments. PSP-RS demonstrates severe midbrain atrophy and cholinergic loss in the pedunculopontine nucleus (PPN). Furthermore, PSP-RS often results in death 5-8 years following diagnosis. Previously, our lab produced PSP-like symptoms after human Tau (hTau) transduction in PPN neurons using a rat-model: motor deficits on the horizontal ladder paradigm and impaired acoustic startle reflex (ASR). Additionally, there was cholinergic and substantia nigra neuron loss, and abnormal tau deposits reflecting typical PSP-RS pathology. ASR deficits correlated to midbrain-to-pons ratios not seen in the control group. We're using Magnetic Resonance Imaging (MRI) to determine the midbrain to pons ratios at 7, 12, and 17-month time points to approximate a time course of PSP-RS disease progression. We hypothesize a progressive decline in the midbrain to pons ratio in experimental hTau rats. This model provides a guideline for identifying MRI biomarkers, supporting early diagnosis and paving the way to treating PSP-RS.

ACADEMIC AND CAREER GOALS: My goal is to obtain a PhD in neuroscience and become a neuroscientist. I'm also very interested in continuing to study brain disorders.
WORDS TO LIVE BY: "You may not control all the events that happen to you, but you can decide not to be reduced by them." -Maya Angelou

Daniel Scimecca

HOMETOWN: Seaford, NY
MAJOR: Neuroscience
INTERNSHIP PLACEMENT: Research Institute on Addictions
SUMMER MENTOR: Dr. Panayotis K. Thanos
SUMMER MENTOR TITLE: Research Associate Professor
DEPARTMENT: Pharmacology and Toxicology
SUMMER PROJECT: *The Effects of Prenatal Exposure to Nicotine and THC Vapor on Ethanol Consumption in Rats*

ABSTRACT: 5.7% of women report tetrahydrocannabinol (THC) use, and 5.4% report nicotine use during their pregnancies. While prior studies have indicated that prenatal exposure to THC and nicotine increases the risk of later substance abuse in offspring, findings specific to alcohol are conflicting. This study investigated the effects of prenatal exposure to THC and nicotine vapor, both alone and in combination, on offspring alcohol consumption. Pregnant rats were exposed to air (vehicle), THC, nicotine, or combined THC and nicotine vapor from gestational day 2 through birth. Offspring were then given access to 2%, 4%, 6%, 8%, and 10% ethanol via a two-bottle choice paradigm. We found that prenatal THC exposure increased ethanol intake and preference in both male and female offspring compared to vehicle and combination groups of their respective sexes, particularly at 6% and 8% ethanol concentrations. At 10% ethanol, male rats prenatally treated with the combination of THC and nicotine showed significantly higher ethanol consumption than the vehicle and THC groups. These findings suggest that prenatal THC exposure may enhance vulnerability to alcohol consumption, while combined prenatal THC and nicotine exposure may increase alcohol intake in males at higher concentrations.

ACADEMIC AND CAREER GOALS: To go to medical school and become a neurosurgeon or neurologist.
WORDS TO LIVE BY: "If the mind is willing, the flesh could go on and on." -Sun Tzu

OreOmo Sosanya

HOMETOWN: Bauchi, Nigeria
MAJOR: Electrical Engineering
INTERNSHIP PLACEMENT: Energy and Power Systems Research Laboratory
SUMMER MENTOR: Dr. Adedoyin Inaolaji
SUMMER MENTOR TITLE: Assistant Professor
DEPARTMENT: Electrical Engineering
SUMMER PROJECT: *Optimizing Smart Inverter Controls for Voltage Regulation in Distribution Networks*

ABSTRACT: The growing integration of solar photovoltaics (PV) in distribution networks introduces voltage regulation challenges, particularly in systems not designed for two-way power flow. Smart inverters (SIs) can help adjust the reactive and real power dynamically. In this context, SI droop-based control, as defined in the IEEE 1547 standard of SIs, can viably overcome adverse impacts of PV integration, providing effective and rapid Volt-Var support. This research will compare droop settings from a newly developed algorithm aimed at maintaining a voltage range between 0.95 – 1.05 p.u. for grid reliability, with the IEEE 1547-defined default settings of the droop curve. Various Volt-Var droop curves will be tested by adjusting slope and deadband width, with the voltage reference point set at 12.66 kV. This study will compare how different inverter settings affect voltage profiles and overall system efficiency. Modelling and simulations of the power distribution grid and SI droops.

ACADEMIC AND CAREER GOALS: To obtain a PhD in Electrical Engineering and teach at a university while also having my own company specializing in energy and power systems. I also want to inspire young students (middle and high school) to pursue STEM degrees.
WORDS TO LIVE BY: “Learning comes step by step, principle by principle; a little at a time, building understanding piece by piece.” -Inspired by Isaiah 28:10

Kenechukwu Ukpabi

HOMETOWN: Rochester, NY
MAJOR: Pharmacy
INTERNSHIP PLACEMENT: Jacobs School of Medicine and Biomedical Sciences
SUMMER MENTOR: Dr. Arin Bhattacharjee
SUMMER MENTOR TITLE: Professor
DEPARTMENT: Pharmacology & Toxicology
SUMMER PROJECT: *Immunolocalization of endocytotic AP2 subunits in the Human Large Dense Core Vesicles*

ABSTRACT: The primary endocytotic machinery used by neurons involves the adaptor protein complex 2 (AP2). Previous work in our lab has shown that using a lipidated inhibitor peptide against the AP2α2 subunit leads to decreased pain behaviors in rats experiencing osteoarthritis. We are investigating whether other subunits may also serve as targets for local pain relief, which is important, as nearly 30% of Americans live with some form of chronic pain. Prior research has shown that the AP2α2 subunit localizes to Calcitonin gene-related peptide (CGRP)-containing large dense core vesicles (LDCVs) in human dorsal root ganglion (DRG) neurons. AP2α2 is involved in endocytosis following CGRP's exocytosis. We will examine whether other AP2 subunits also colocalize with CGRP-containing LDCVs. Human DRG neurons will be collected from cadavers and immunostained with validated antibodies against the AP2 sigma subunit (AP2σ), a key subunit involved in endocytosis, and CGRP. Specimens will be examined under fluorescent microscopy to evaluate whether AP2σ and CGRP colocalize. If AP2σ is found to colocalize with CGRP in LDCVs within nociceptors, it will suggest that inhibiting this subunit may be a useful method to decrease neuronal responsiveness to painful stimuli. Creation of a peptide targeting AP2σ could provide localized chronic pain relief.

ACADEMIC AND CAREER GOALS: My goal is to obtain a Doctorate of Pharmacy and earn an MBA and eventually opening my own practice.
WORDS TO LIVE BY: "Words are like arrows, and actions are like bows."

The 2025 CSTEP Summer Research Program expresses thanks & appreciation to the following workshop & tour facilitators for their contributions & support:

DR. GLORIA AIDOO-FRIMPONG
Assistant Professor, Epidemiology and Environmental Health

DR. JESSY ALEXANDER
Professor,Jacobs School of Medicine & Biomedical Sciences

TIFFANY BASSETT
Career Design Consultant, Career Design Center

DR. HANS BOATENG
Investment 101, Tutor

HADAR BORDEN
Director, Startup & Innovation Collaboratory

ED BRODKA
Career Counselor,
UB Career Design Center

DR. KEVIN BURKE
Associate Dean for Student Affairs, School of Engineering & Applied Sciences,Associate Professor of Teaching, Electrical Engineering

DR. THOMAS COVEY
Assistant Professor, Neurology

PROFESSOR DIANNA CIHOCKI
Clinical Associate Professor, School of Management

DR. STEWART CLARK
Associate Professor, Pharmacology & Toxicology

DR. PAUL CULLEN
Professor, Biological Sciences

JAMIL CREWS
Digital Communications Manager, Say Yes Buffalo

JESSICA DRISCOLL
Innovation Sprints Coordinator, Startup & Innovation Collaboratory

DR. FOLARIN EROGBOGBO
Associate Professor, Biomedical Engineering, San Jose State University

DR. THOMAS FEELEY
Professor, Department of Communication

DAVE FERRIS
Career Design Consultant, Career Design Center

DR.YUSHUN FU
Research Scientist, SEESL

LISA GAGNON
Advisor, Office of Fellowships and Scholarships

DR. DANIELA GOYA-TOCHETTO
Assistant Professor, Organization & Human Resources

ANDREA GREENWOOD
Associate Director of Counseling

DR. JAMES JENSEN
Professor, Civil, Structural and Environmental Engineering

DR. ANYANGO KAMINA
Assistant Dean for Student Development and Academic Enhancement

SAMUEL KIM
Associate Dean, Division of Educational Affairs, Roswell Park Comprehensive Cancer Center

DR. JOYCE LACY
Clinical Associate Professor, Psychology

DR. NZINGA MACK
Post-Doctoral Research Fellow, John Hopkins University, Whiting School of Engineering

DR. AMY MARSCHIOK
Associate Professor, Chemistry, Stony Brook University

PROFESSOR TOM MURDOCK
Clinical Assistant Professor, School of Management

DR. MOSTAFA NOUH
Associate Professor, Mechanical & Aerospace Engineering

DR. IFEOMA NWOGU
Associate Professor, Computer Science & Engineering

SUSAN O'ROURKE
Assistant Director, Mentorship Initiatives

DR. MATTHEW PAUL
Associate Professor of Psychology

NANCY PRESKOP
Operations Coordinator, ATLAS Lab

DR. JAMES RAMSEY
Director, AJR Services

NELSON RIVERA
Elementary School Teacher at Frank A. Sedita Academy

Dr. LAVONE RODOLPH
Post-Doctoral Researcher, Department of Computer Sciences

DR. KEBA ROGERS
Psychologist, Mental Health Counselor at Grace, Growth and Greatness Psychological Services

MARY RUELLE
Director of Strategic Talent Initiatives, Tech Buffalo

DR. ATRI RUDRA
Associate Professor, Computer Science & Engineering

ANNIKA SAMUELS
Director of Diversity & Inclusion at National Fuel

EDUVIJEZ SANCHEZ
Assistant Director of Graduate Recruitment, Graduate School of Education

DR. VICKI SAPP
Chief Diversity, Equity & Inclusion Officer, SUNY Fredonia

PROFESSOR DOMINIC M. SELLITTO
Clinical Assistant Professor, Management Science & Systems

CAROL SCHMEIDLER
Manager of Safety & IH, Environmental Health & Safety

DR. DOROTHY SIAW- ASAMOAH
Clinical Assistant Professor, Organization and Human Resources Department, School of Management

ALLY SIEVERS
Lead Coordinator, Student Engagement

DR. TERRY-ANN SMITH
Project Staff Associate, CTRC

DR. CLAYTON STEEN
Associate Vice President Enrollment Management. Penn State

AMANDA TYSON-RYBA
Assistant Director of Counseling, Counseling Services

DR. CHRISTINE TINNESZ
Clinical Assistant Professor, Department of Communication

TOM VANE
Assistant Director, Student Engagement for Student Governance & Organizations

KELSEY WAGNER
Entrepreneurial Training Coordinator, Startup & Innovation Collaboratory

DR. MIAN WAKIL
Administrator, ATLAS Lab, Dept. of Urology, Roswell Park

OLIVIA WEST
Founder & Educational Instructor, West Advisory Group, and Acting Executive Director of Champions of Change

ALLEN C. WILLIAMS
Assistant Director for Retention Initiatives, Intercultural Diversity Center

THANK YOU to our 2025 CSTEP Summer Symposium Judges!

NAME	DEPARTMENT
DR. RAVIKUMAR AALINKEEL	Medicine
DR. JESSY ALEXANDER	Medicine
DR. SUSAN BAKER	Pediatrics
DR. JAMES BERRY	Biological Sciences
DR. ELSA BOU GHANEM	Microbiology
DR. LORA CAVUOTO	Industrial & Systems Engineering
DR. REBEKAH CHARNEY	Biochemistry
DR. STEWART CLARK	Pharmacology & Toxicology
DR. MARGARET DEANGELIS	Opthamology
DR. ALEXANDER DIEHL	Biomedical Informatics
DR. MICHAEL DWYER	Neurology
DR. STEVEN FLIESLER	Opthamology
DR. XIANGYU GUO	Computer Science & Engineering
DR. ALAA ELDEEN HASSAN ALI	Mechanical & Aerospace Engineering
DR. MARK HICAR	Pediatrics
DR. TRACEY IGNATOWSKI	Pathology & Anatomical Sciences
DR. JOBAIDUR KHAN	Mechanical & Aerospace Engineering
DR. JESSICA KRUGER	Community Health and Health Professions
DR. ANN KUHN	Exercise & Nutrition Sciences
DR. KENNETH LEONARD	Psychiatry
DR. KELIN LUO	Computer Science & Engineering
DR. SUPRIYA MAHAJAN	Medicine
DR. PAUL MEYER	Psychology
DR. MONICA MILES	Engineering Education
DR. VIVIANA MONJE	Chemical and Biological Engineering
DR. CAROLYN MONTGOMERY	Nursing
DR. IFEOMA NWOGU	Computer Science & Engineering
DR. SHAMSAD PARVIN	Computer Science & Engineering
DR. DIANA RAMIREZ-DIOS	Industrial and Systems Engineering
DR. LAVONE RODOLPH	Computer Science & Engineering
DR. PRASHANT SANKAREN	Industrial and Systems Engineering
DR. DEBANJAN SARKAR	Biomedical Engineering
MS. DIANE SCHWARTZ	Biomedical Informatics
DR. SABRINA SCHWARTZ	Nursing
DR. NITASHA SEHGAL	Biological Sciences

THANK YOU to our 2025 CSTEP Summer Symposium Judges!

NAME	DEPARTMENT
DR. SPYRIDON STAVROU	Microbiology and Immunology
DR. MARK SWIHART	Chemical and Biological Engineering
DR. SARAH WALKER	Biological Sciences
DR. JUNGEUN WON	Biomedical Engineering

WHERE ARE THEY NOW?
An Update On Previous CSTEP Summer Research Interns

First Name	Last Name	Summer Research Program Year	UB Major(s)	Where are they now?	What's their title?
Brianna	Acheampong	2007	Electrical Engineering	City of Monroe (North Carolina)	Engineer
Dr. Frank	Acheampong	2007	Pharmacy	National Institutes of Health	Clinical Pharmacist - Informatics
Dr. Geraldene	Agbasionwe	2007	Pre-Pharmacy	Live Good Pharmacy INC	Supervising Pharmacist
Ernestine	Brown	2007	Nursing	University of Rochester Medical Center	Nurse Practitioner
Dr. Corie	Ellison	2007	Pharmacology & Toxiology	Procter & Gamble	Toxicologist
Moses	Farley	2007		PPL Corporation	Engineer
Mark	Glasgow	2007	Biotechnology	Citi	VP, Digital Solutions
Dr. Richard	Linares	2007	Mechanical & Aerospace Engineering	MIT	Boeing Assistant Professor
David	Louis	2007	Psychology	Canarsie Recovery Coalition	Project Director
Dr. Shiny	Thomas	2007	Pharmacy	CVS Pharmacy; Touro College	PharmD
Kevin	Bryant	2008	Electrical Engineering	Bechtel Plant Machinery, Inc	Electrical Engineering Project Manager
Dr. Toni-Shay	Chandon	2008	Pharmacy		PharmD
Dr. Daivon	Garrick	2008	Pharmacology & Toxicology	M&T Bank	VP Credit Risk Analyst
Dr. Marda	Hailu	2008	Biological Sciences	Western New England University College of Pharmacy	PharmD
Dr. Jessica	Isaac	2008	Pharmacy		PharmD
Dr. Aggrey	Jacobs	2008		UB school of engineering	Doctoral Student
Dr. Anthony	Jones	2008	Biomedical Sciences	Environmental Protection Agency	Life Scientist
Dr.Micah	McCurty	2008	Exercise Science	Owner, Therapy Unlimited	DPT
Dr. Hieu	Nguyen	2008	Biochemistry	University of Washington	Resident Pediatric Dentist
Dr. Wilberforce	Osei	2008	Chemistry/ Pharmacology	Bowie, Maryland	PharmD
Francis	Perez	2008	Chemical & Biological Engineering	MS Chemical Engineering from SUNY at Buffalo	Chemical Engineer
Souleymane	Sow	2008	Aerospace Engineering	MS in Aerospace Engineering from Purdue University	Aerospace Engineer

Dr. Franklin	Yeboah	2008	Medical Technology	Massachusetts College of Pharmacy and Health Sciences	PharmD
Dr. Hans	Boateng	2009	Biomedical Sciences	The Investing Tutor	PharmD/MBA
Corinna	Joseph	2009	Engineering	Bechtel Marine Propulsion Corporation (Bechtel Plant Machinery Inc.)	Engineer
Dr. Jean	Mandat	2009	Psychology	New York College of Osteopathic Medicine	Medical Doctor
Dr. Jasmine	May	2009	Biological Sciences	Completed MD/PhD at Northwestern University	Medical Student
Christopher	Williams	2009	Engineering	Lam Research Corp./ IBM Corp.	Field Service Engineer II, (FSE)
Bruck	Adam	2010	Mathematics	IPRO, NYS Department of Health, Office of Quality and Patient Safety, Bureau of Health Informatics	Data Analyst
Dr. Priscilla	Adjei-Baffour	2010	Pharmacy	Marshall University School of Pharmacy	PharmD
Dr. Chiamaka	Agbasionwe	2010	Biological Sciences	Biological Deparment	PharmD
Derek	Brim	2010	Engineering	NRD, LLC	Electrical Engineer
Joseph	Diehl	2010	Civil Engineering	MS Department of Civil, Structural, and Environmental Engineering, SUNY at Buffalo	Engineer
Ian	Duncan	2010	Mechanical Engineering	Suspension & Steering Dynamics at Honda R&D	Engineer
Christina	Garcia	2010	Biomedical Sciences	Ross University	Medical Student
David	Molina	2010	Finance, Cell and Gene Therapy	Catalent Pharma Solutions	Associate Director
Thao	Nguyen	2010	Engineering	University of Rochester	Engineer with Panasonic
Dr. Adonis	Pimienta-Penalver	2010	Aerospace Engineering	Completed doctoral studies at UB	Doctoral Student
Antonio	Upia	2010	Completed MS Engineering	Mass Electric Construction Co.	Eletrical Field Engineer
Keelan	Chu For	2011	Mechanical and Aero-space Engineering	University at Buffalo	Engineer with Moog
Hector	Coco	2011	Mathematics	City of Buffalo Police Dept., JetBlue	Police Officer, Engineer
Belle	Cunningham	2011	Engineering	Pepsi	Project Supervisor
Jonathan	Feliciano	2011	Psychology	NBC Universal, Inc.	Research Analyst
Dr. Tavia	Garvey	2011	Pharmacy	Wegman Food Market	PharmD
Paul	Glenn	2011	Physics	Brooklyn Technical High School	Physics Teacher

Isabel	Gonzalez	2011	Civil Engineering	Completed MS Engineering	Civil Engineer
Dr. Richard	Hunte	2011	Biomedical Sciences	Regeneron	Scientist
Jordan	Jorgensen	2011	Engineering	Knightvest Management	Leasing Professional
Gael	Lamothe	2011	Engineering	SCCS Group	Senior Project Manager
Millicent	Nwankwo	2011	Biological Sciences	Shire Pharmaceuticals	R&D Global Health Economic, Outcomes Research, Epidemiology
Damian	Ogbonna	2011	Computer Engineering	Utilant	Web App Developer
Gino	An	2012	Biological Sciences	UB Dental School	DDS Student
Barinaepkee	Banuna	2012	Pre-Med/Biomedical Sciences	Hofstra Medical School	Medical Student
Sharece	Blake	2012	Electrical Engineering	Catalyst Fitness	Personal Trainer
Nuris	De La Cruz	2012	Completed MS program	Columbia Presbyterian	Psychological Counseling
Dr. Keith	Dolcy	2012	Pharmacy	UNC/Nuventra Pharma Sciences Innovation	Fellow
Brandon	Durant	2012	Engineering	University at Buffalo	Graduate Student
Dr. Ashley	Narain	2012	Biological Sciences	University of Bridgeport College of Chiropractic	Doctor of Chiropractic
Dr. Khalif	Osson	2012	Pharmacy	CVS Pharmacy	Clinical Pharmacy Specialist
Frank	Segui	2012	Engineering	Western Michigan University	Graduate Student, Electrical Engineering
Theresa	Yera	2012	Anthropology, Pre-Med	Liberty Resources	Electronic Records Specialist
Yun	Zheng	2012	Biological Sciences	Bristol Myers Squibb	Senior Associate Scientist
Jonathan	Ahmedu	2013	Mechanical & Aero-space Engineering	Momentive Technologies	Senior Process Engineer
Dr. Summar	Amin	2013	Biomedical Sciences	Anaheim Hills Dental Group and Orthodontics	General Dentist
John	Brito	2013	Biological Sciences	BioReference Laboratories	Medical Technologist
Dr. Nicholas	Costable	2013	Biological Sciences	Montefiore Medical Center	Gastroenterology Fellow
Akeem	Francis	2013	Electrical Engineering	MAHLE	Project Engineer

Johnathan	Goodrum	2013	Electrical Engineering	Google	Software Engineer
John	Habert	2013	Biological Sciences	United States Marine Corps	Company Commander
Dr. Christ Ange	Katche	2013	Pharmacy/MBA	Cambridge Health Alliance	Pharmacy Resident
Muhammad	Khan	2013	Mechanical & Aero-space Engineering	Northrop Grumman	Reliability Engineer (Florida)
James	Lopez	2013	Psychology	Power U Center for Social Change (Miami, Fla)	Executive Director
Dr. Ayo	McKenzie	2013	Chemistry	Temple University	PharmD
Dr. Andrews	Obeng-Ayarkwah	2013	Pharmaceutical Sciences	University at Buffalo School of Pharmacy	PharmD
Michael	Singletary	2013	Electrical Engineering (Mathematics-minor)	United States Army	Officer/ Helicopter Pilot
Dr. Alexandria	Trujillo	2013	Biological Sciences	HR Policy Association	PharmD, Strategic Analyst
Dr. Uzoamaka	Aniagba	2014	Biological Sciences	Indiana University School of Medicine	Medical Doctor
Dr. Warren	Barrett	2014	Chemistry	Riverview Professional Pharmacy	Pharmacy Technician
Leatrice	Bennett	2014	Biological Sciences	Swedish Neuroscience Institute	Coordinator, MPH
Dr. David	Bratton	2014	Biological Sciences	Jacobs School of Medicine & Biomedical School	Medical Doctor
Kevin	Carpio	2014	Mechanical & Aero-space Engineering	Northrop Grumman (California)	Aerospace Engineer (Palmdale, California)
Kemji	Eke	2014	Biology	Huron	Salesforce Consultant
Dr. Robert	Ferguson	2014	Biology	University at Buffalo Dental School	Dentist
Akunne	Kanu	2014	Public Health	Bartow Ophthalmology, LLC	Assistant & Technician
Dr. Jacob	Milling	2014	Biology	University of Florida, Emergency Medicine	Medical Resident
Abas	Omar	2014	Biology	MedFirst Primary Urgent Care	Physician Assistant
Dr. Austin	Price	2014	Biology	UB Jacobs School of Medicine & Biomedical Science	Medical Doctor
Timothy	Semon	2014	Anthropology	Marquette University	Doctor of Dental Surgery
Hamlet	Spencer	2014	Mechanical Engineering	Ingersoll Rand	Design Engineer

Bethany	Walton	2014	English	ECMC Hospital	Social Worker
Dr. Christina	Aponte	2015	Biomedical Sciences	BronxCare Health Syetm	Orthodontic Resident
Dr. Kwame	Boakye-Yiadom	2015	Biological Sciences	Eli Lilly and Company	PharmD, Safety Manager
Kelly	Boamah	2015	Pharmacology & Toxicology	D'Youville School of Pharmacy	PharmD
Joaquin	Canay	2015	Biotechnology	Thermo Fisher Scientific	Biotechnologist
Jennifer Lynn	Donato	2015	Biotechnology	Lake Erie College	Medical Student
Mark	Estudillo	2015	Mechanical Engineering	Meta	Software Engineer
Dr. Shawn	Gibson	2015	Biomedical Sciences	Kings County SUNY Downstate	Emergency Medical Resident
Hoda	Moussa	2015	Biological Sciences	University at Buffalo Law School	Lawyer
Dr. Peter	Okorozo	2015	Pharmaceutical Sciences	PRMA Consulting Ltd	PharmD, Senior Analyst
Folake	Olaleye	2015	Biological Sciences	D'Youville School of Pharmacy	PharmD
Oluwatosin	Oniyide	2015	Biological Sciences	Albert Einstein College of Medicine	Medical Student
Dr. Rasheen	Powell	2015	Pharmacology & Toxicology	Boston Children's Hospital	Post-Doc Researcher
Valeria	Prieto	2015	Civil Engineering	Gilsanz Murray Steficek	Engineer
Dr. Zakiya	Rhodie	2015	Pharmacology & Toxicology	CVS Pharmacy	Pharmacist
I'Yanna	Scott	2015	Biological Sciences	Jacobs School of Medicine	Medical Student
Naza	Abdelrahman	2016	Biomedical Sciences	CITYMD	Medical Scribe
Dr. Ali	Al Qaraghuli	2016	Electrical Engineering	NASA Jet Propulsion Lab	Systems Engineer
Dr. Andrew	Alegria	2016	Mechanical Engineering	Objective Biotechnology	VP of Robotics
Dr. Barituziga	Banuna	2016	Chemical Engineering	Chemical Engineering at Cornell University	Researcher
Emmanuel	Cott	2016	Computer Sciences	Huron	Salesforce Developer
Abdul-Malik	Davies	2016	Chemical Engineering		
Tanahiry	Escamilla	2016	Chemical Engineering	3M	Manufacturing Engineer
Alejandro	Falca	2016	Medicinal Chemistry	UB Jacobs School of Medicine	Medical Student
Jarrett	Franklin	2016	Electrical Engineering	Moog Space and Defense Group	FPGA Design Engineer

Chris	Gnam	2016	Mechanical Engineering	NASA Goddard Space Center	NASA ProjectTrainee
Dominique	Hickson	2016	Computer Engineering	University at Buffalo	MS Computer Science & Engineering
Anna	Huang	2016	Social Sciences Interdisciplinary	Orthofix	Territory Manager
Mohammed	Karim	2016	Biomedical Sciences	US AIr Force/UNLV School of Medicine	MD, Resident Physician
Dr. Jalisa	Kelly	2016	Biomedical Sciences	East Carolina University	MD, Psychiatry Resident
Kaytlan	LoCicero	2016	Social Sciences Interdisciplinary	Osmose	MPH, Project Coordinator
Anthony	Lopez	2016	Biological Sciences	SUNY Upstate Medical University	Medical Student
Jillian	Naylor	2016	Biological Sciences	New York City	Dental Student
Aaron	Nimako	2016	Biomedical Sciences	Empire MG Inc	CEO/President
Lee-Mary	Njoku	2016	Biomedical Sciences	Urban Health Plan, Inc.	Physician Assistant
Ndidiamaka	Okorozo	2016	Biomedical Sciences	Drexel University	MD, Cardiologist
Iyamu	Osazuwa	2016	Electrical Engineering	UB School of Engineering & Applied Sciences	Engineer
Lucas	Rugar	2016	Civil, Structural & Environmental Engineering	FreeWheel, Columbia University MS Management Science & Engineering	Senior Manager Analytics
Diamile	Tavarez	2016	Biology/Biological Sciences	Regeneron	Senior Assc. Scientist
Dr. Douglas	Tsahey	2016	Biomedical Sciences	Jacobs School of Medicine	Medical Doctor
Marcus	Ashford	2017	Electrical Engineering	General Motors	Controls Engineer
Dr. Leon	Butcher IV	2017	Psychology	Family Dentistry (Charlotte,NC)	Dentist
Kennedy	Colon	2017	Civil, Structural & Environmental Engineering	Oakland, CA	Project Manager
Leonardo	Gobbato	2017	Chemical Engineering	Dimien Inc.	VP of Engineering
Dr. Blessing	Hunsu	2017	Chemistry	Caguya Medical Center,	Inpatient Pharmacist
Starr	Johnson	2017	Pharmacology & Toxicology	Aspire of WNY	Team Coordinator
Coral	Lopez-Jimenez	2017	Chemistry	Odoo	Technical Project Mngr
Dr. Neneyo	Mate-Kole	2017	Pharmacology & Toxicology	Schwab Rehabilitation Hospital/University of Chicago	MD, Resident Physician
Lawrence	Owusu	2017	Industrial Engineering	University at Buffalo	MS Industrial Engineering

Ariana	Roman	2017	Psychology	Susan G. Komen Foundation	Program Evaluator
Godfrey	Sakyi	2017	Electrical Engineering	Naval Sea Systems Command	Systems Engineer
Adline	Sarpong	2017	Biological Sciences	Dent Neurological	Medical Assistant
Tyree	Singleton	2017	Industrial Engineering	United Airlines	Senior Analyst
Ashley	Solomon	2017	Nursing	Sabon NYC	Senior Sales Associate
Cassandra	Ware	2017	Computer Science & Engineering	New Era Cap	Senior Developer
Makayla	Watson-Wales	2017	Speech & Hearing Science	Connected Collaborations	Speech Language Pathologist
Annakay	Adamson	2018	Biological Sciences	UB Jacobs School of Medicine	Medical Student
Gregory	Adams, Jr.	2018	Psychology	Brookfield Properties	Operating Engineer
Abshiro	Ali	2018	Biology/Biological Sciences	UB Jacobs School of Medicine	Post-Bacc Student
Deborah	Amponsah	2018	Pre-Law/Philosophy	Martin Clearwater & Bell LLP	Associate Attorney
Michael	Banjoko	2018	Biomedical Engineering	Prevail Therapeutics	Senior Scientist
Gerardo	Barrera Giron	2018	Environmental Engineering	AECOM	Enviormental Engineer II
Dr. Kwaku	Bonsu	2018	Biological Sciences	UB Jacobs School of Medicine & Biomedical Sciences	Resident Physician
Tanzania	Bussey	2018	Pharmacology & Toxicology	UB MS Biomedical Sciences	Graduate Student
Edgar	Claudio	2018	Pharmacology & Toxicology	UB School of Pharmacy	Pharmacy Student
Temara	Cross	2018	Biomedical Sciences	UB Jacobs School of Medicine	Medical Student
Chimaobi	Ezeilo	2018	Computer Sciences	University of Texas at Austin	MS in Computer Science
Jhanna	Flora	2018	Biological Sciences	University at Buffalo MS Biotechnology	Graduated 2021
Steven	Herrera	2018	Mechanical Engineering	Network Infastructure Inc.	CAD Tecnician
Charitie	Hill	2018	Chemistry	Q^2 Solutions	Laboratory Project Coordinator
Nasiah	Johnson	2018	Electrical Engineering	Lockheed Martin	Systems Engineer
Brianna	Kinley	2018	Psychology	UB Jacobs School or Medicine and Biomedical Sciences	Medical Student
Jessica	Maxwell	2018	Biochemistry	Geisinger Commonwealth SOM	MBS 2024, Researcher
Shelbi	Molin	2018	Political Sciences	Office of NYS Attorney General	Attorney General Fellow
Keiona	Nance	2018	Exercise Science	Jamestown Public Schools	Certified Athletic Trainer

Nailah	Oronde	2018	Public Health	University at Buffalo	Graduated 2019
Priya	Persaud	2018	Aerospace Engineering	Lockheed Martin	Design Engineer
William	Phillips	2018	Computer Sciences	Sabre Systems Inc.	Software Dev. Engineer
Elizabeth	Quaye	2018	Pharmacology & Toxicology	UB Jacobs School of Medicine & Biomedical Sciences	Researcher
Aliaya	Williams	2018	Biological Sciences	Jacobs School of Medicine	Medical Student
Dr. Marvellous	Adegoke	2019	Pharmacy	UB School of Pharmacy and Pharmaceutical Sciences	MS Student Pharm Sciences Online
Abdulelah	Ahmed	2019	Biomedical Sciences	Fresenius Kabi	Associate Scientist
Taylor	Campbell	2019	Biomedical Sciences	Jacobs School of Medicine	Medical Student
Julie	Campbell	2019	Public Health	University of Pittsburgh	Clinical Research Assc.
Heather	Evangelista	2019	Environmental Engineering	H2M Architects & Engineers	Water Resources Staff Engineer
Florebencia	Fils-Aime	2019	Computer Sciences	General Motors	Software Developer
Triniti	Fitts	2019	Biological Sciences	Jacobs School of Medicine	Medical Student
Ronique	Fletcher	2019	Biological Sciences	NYU School of Public Health	Graduate Student
Allea	Frazier	2019	Psychology	John Hopkins School of Public Heath	Bloomberg Fellow
Muhanned	Ibrahim	2019	Computer Science & Mathematics	Boeing	Software Engineer
Ayesha	Ismail	2019	Computer Science	Foxtrot Division	Developer
Dr. Arsh	Issany	2019	Biomedical Sciences	University of Rochester	Residency in Internal Medicine
K'Von	Jones	2019	Biological Sciences	Illustrations by K'Von	Illustrator/Artist
Charles	Lafargue	2019	Pharmacology & Toxicology	Jacobs School of Medicine & Biomedical Sciences	Medical Student
Tamijah	Lawton-Stone	2019	Psychology/Sociology	University at Buffalo	Residence Hall Director
Isabelle	Linares	2019	Biomedical Engineering	University of Rochester	PhD Student Biomedical Engineering
Julius	Mark	2019	Mathematics/Actuary Sciences (Statistics minor)	Helpline Coordinator	Community Service Society of NY
Ricardo	Martinez	2019	Mechanical Engineering	EB Mechanical LCC.	Mechanical Engineer
Marcellus	Midyette	2019	Biological Sciences	Inter-mountain Health	Patient Care Technician
Chidubem	Okorozo	2019	Chemical Engineering	STAR Mentoring Program	Mentor
Kyle	Pierre	2019	Electrical Engineering	Ford Motor Company	Ford Bronco Systems Engineer
Adegboyega	Thompson	2019	Chemistry	Rush University Medical College	Medical Student
Lesly	Villanueva	2019	Environmental Engineering	Mott MacDonald	Engineer III

Mohammed	Abbadi	2020	Biology/Biological Sciences	Jacobs School of Medicine	Medical Student
Omolara	Adeyemi	2020	Biology/Biological Sciences	University at Buffalo	Graduated 2022
Isaac	Asante	2020	Public Health	University at Buffalo	Graduated 2021
Jordan	Brathwaite	2020	Biomedical Engineering	NYU Tandon	Graduate Student
Paula	Costa	2020	Neuroscience	University of Pennsylvania	PhD Student Pharmacology
Waldine	Edouard	2020	Chemistry	Materion Corporation	Lab Analyst
Ahamed	Fofana	2020	Computer Sciences	CVS	Software Engineer
Sonjii	Parris	2020	Industrial Engineering	Mount Sinai Health System	Process Engineer
Brittany	Richardson	2020	Psychology	Roswell Park Comprehensive Cancer Center	Research Laboratory Technician
Samantha	Watts	2020	Biomedical Sciences	Boston School of Medicine	Medical Student
Malaike	Addo	2020	Public Health	US Army, Defense Intelligence Agency	Finance Liason
Moyofoluwa Rachel	Aguda	2020	Biochemistry	National Institute of Health	ResearchTrainee
Mirka	Arevalo	2020	Aerospace & Mechanical Engineering	University at Buffalo MBA Program	UX Designer/Graduate Student
Mahanaz	Chowdhury	2020	Civil Engineering	University at Buffalo	Continuing Student
Adwoa	Dadzie	2020	Biology/Biological Sciences	Penn State University	PhD Student in Behavioral Health
Michael	Edovia Osagiede	2020	Public Health	Pace University	Nursing Student
Jerry	Ingram	2020	Biology/Biological Sciences	Fifth Third Bank	Data Engineer
Evelyne	Kouya	2020	Biomedical Sciences	Canisius University	PA Student
Chukwudi	Nwoke	2020	Aerospace Engineering	Grow Brooklyn, Inc.	Environmental Engineer
Ugonna	Okafor	2020	Chemistry	Notre Dame University	Graduate Student (Pharmaceutical Sciences)
Elijah	Panayoty	2020	Electrical Engineering	Raytheon	FPHA Electrical Engineer 1
Ophelia	Phillips	2020	Biology/Biological Sciences	CITYMD	Medical Scribe
Nigel	Smith Ordain	2020	Public Health	RTI International	Economist III
Dorien	Thompson	2020	Biology/Biological Sciences	North Shore University Hospital	Patient Care Associate
Ean	Weise	2020	Mechanical Engineering	Silfex, a division of LAM Research	Systems Engineer

Emmanuel	Agyenim Boateng	2021	Biomedical Sciences	CVS	Pharmacy Technician
Chidera	Anameze	2021	Biomedical Sciences	Jacobs School of Medicine	Medical Student
Chidalu	Anameze	2021	Biomedical Sciences	Jacobs School of Medicine	Medical Student
Lillian	Baker	2021	Environmental Engineering	M & J Engineering Inc.	Special Inspector
Jose	Carrasco Ramon	2021	Civil Engineering	Assc. Concrete Construction	Building Inspector
Jeremiah	Chapman	2021	Biochemistry	Jacobs School of Medicine	Medical Student
Sara	Cruz	2021	Neuroscience	Jacobs School of Medicine	Graduate Student
Iyobosa	Ekhator	2021	Public Health	Jacobs School of Medicine	Post-Bacc Student
Bradley	Givens	2021	Computer Sciences	Fifth Third Bank	Data Engineer
Danielle	Haynes	2021	Psychology	Canisius University	PA Student
Amarachi	Kanu	2021	Biology/Biological Sciences	UB School of Pharmacy and Pharmaceutical Sciences	PharmD Student
Justin	Kellier	2021	Biology/Biological Sciences	University at Buffalo Biological Sciences	MS Microbiology
Tyree	Langley	2021	Psychology	University of Pittsburgh	PhD Student Psychology (Cognitive Science)
Marcos	Lopez	2021	Biology/Biological Sciences	University at Buffalo	Pursuing Medical School
Jenny	Moya	2021	Biomedical Engineering	Norvatis	Engineer
Marieross	Navarro	2021	Mechanical Engineering	Bausch & Lomb, Rochester	Process Engineer
Ngowari	Opuso-Jama	2021	Biochemistry	Jacobs School of Medicine	Medical Student
Maisha	Rahman	2021	Public Health	Graduated MPH 2023	Doula at Jericho Road
Breanna	Roper	2021	Biotechnology	Graduated May 2023	Applying to MD/PhD
Dania	Salah	2021	Biomedical Sciences	SUNY Upstate Medical	Medical Student
Holliday	Sims	2021	Computer Sciences	University at Buffalo	PhD Engineering Ed
Sergio	Smith	2021	Mathematics	University at Buffalo	WNY Prosperity Fellow
Melina	Villa	2021	Biomedical Sciences	Jacobs School of Medicine	Medical Student

Nicole	Agbo	2022	Neuroscience	Temple University School of Medicine	Medical Student
Malisah	Amoako	2022	Biomedical Sciences	Jacobs School of Medicine	Post-Bacc Student
Cedric	Bone	2022	Computer Science	RIT	PhD student Computer and Information Science
Andrea	Botchway	2022	Neuroscience	University at Buffalo MS Natural Sciences Interdisc	Pursuing Med School
Thamarah	Bouaz	2022	Psychology	Scribe America	Chief Medical Scribe
Ryan	Dewan	2022	Biological Sciences	Jacobs School of Medicine	Medical Student
Jasmine	Edmonds	2022	Nursing	University at Buffalo	Registered Nurse
Fatou	Gueye	2022	Mechanical & Aerospace Eng	University at Buffalo MS Aerospace Engineering	Graduate Student
Muhsinah	Howlader	2022	Neuroscience	Jacobs School of Medicine	Medical Student
Danielle	Hurtado	2022	Accelerated Nursing	University at Buffalo	Continuing Student
Opeyemi	Ibitayo	2022	Neuroscience	Indiana University - Indianapolis	PhD Student
Haley	Kennedy	2022	Psychology	UB Business Analytics MS	Graduate Student
Riess	Lessey	2022	Electrical Engineering	University at Buffalo Electrical Engineering	Graduate Student
Joel	Muhigirwa	2022	Electrical Engineering	Hazen & Sawyer	Assistant Engineer
Olayinka	Ogunde	2022	Biological Sciences	NYU Rory Meyers College of Nursing	Nursing Student
Rafael	Ortiz	2022	Neuroscience	Jacobs School of Medicine	Medical Student
Peterson	Pierre	2022	Chemistry	University at Buffalo MS Epidemiology	Pursuing Med School
Cristian	Pompey	2022	Computer Engineering	Bank of America	Software Engineer
Daniel	Ruano	2022	Exercise Science	University at Buffalo Clinical Nutrition MS	Graduate Student
Kayla	Rue	2022	Biological Sciences	OptiMed Health Plans	Analyst
Devonte	Tolliver	2022	Neuroscience	Rochester, NY	EMT
Jamel	Usen	2022	Electrical Engineering	University at Buffalo MS Electrical Engineering	Graduate Student

Maritza	Ventura	2022	Biological Sciences	Jacobs School of Medicine	Research Technician 1
Nosakhare	Adodo	2023	Public Health	University at Buffalo	Continuing Student
Maymuna	Akter	2023	Biomedical Sciences	Atwal Eyecare	Opthalmic Technician
Saviour	Ameyaa	2023	Biomedical Sciences	University at Buffalo	Pursuing Med School
Kwabena	Atim	2023	Civil Engineering	NYS Dept. of Transportation	Inspector
Kinja	Bagalwa	2023	Speech & Hearing Sci	Amherst Christian Academy	Lead Teacher
Djaliatou	Barry	2023	Biological Sciences	University at Buffalo	Graduate Student
Alex	Bermudez	2023	Biological Sciences	University at Buffalo	PhD Student in Biological Sciences
Olivia	Cannizzaro	2023	Neuroscience	University at Buffalo Special Masters Program	Graduate Student
Serenity	Capella	2023	Public Health	University at Buffalo MPH	Graduate Student
Sulayman	Ceesay	2023	Computer Science	University at Buffalo	Continuing Student
Mariadela	Demoura	2023	Biological Sciences	University at Buffalo	Pursuing PhD in Cancer Immunology
Chigozie	Eke	2023	Engineering Sceince	National Grid	Electricity Controls Engineer
Mohamed	Enaitalla	2023	Electrical Engineering	Corning, Inc.	Field Engineer
Daniel	Fakayode	2023	Public Health	University at Buffalo MPH	Graduate Student
Matthew	Gonzalez	2023	Civil Engineering	Skanska USA	Field Engineer
Rachel	Kyaw	2023	Biological Sciences	People's Inc.	Treatment Assistant
Trinity	Martin	2023	Psychology	University at Buffalo MS Criminology	Graduate Student
Cara	Michno	2023	Psychology	University at Buffalo	Researcher
Laibah	Mir	2023	Law	UB Philosophy, Politics, & Economics	Graduate Student
Kingsley	Mitchell	2023	Biological Sciences	Beechwood Continuing Care	Dietary Aide
Rihta	Munguyupo	2023	Psychology	Upstate Medical University	Therapy Aide
Shayonna	Oaks	2023	Law & History	Center for Elder Law & Justice	Staff Paralegal
Tyshawn	Searight	2023	Mechanical Eng	Eaton Corporation	Mechanical Design Engineer
LadieJocelynn	Shabazz	2023	Chemistry	Stony Brook University Dept. of Chemistry	PhD Student

Jelyse	Williams	2023	Biological Sciences	Buffalo State University	Continuing Student
Lior	Adjundanpor	2024	Electrical Engineering	University at Buffalo	Graduate Student
Akosua	Adu	2024	Engineering Scicence	University at Buffalo	Continuing Student
Funmilayo	Ajani	2024	Neuroscience	New York City	Medical Assistant
Iyitunde	Akinsola	2024	Aerospace Engineering	University at Buffalo	Continuing Student
Wisdom	Akinyele	2024	Psychology	University at Buffalo	Continuing Student
Precious	Alamu	2024	Neurosciene	University at Buffalo	Continuing Student
Oluwayemisi	Babalola	2024	Computer Science	University at Buffalo	Continuing Student
Donaldine	Boukari	2024	Biological Science	University at Buffalo	Graduate Student
Zara	Braimah	2024	Chemistry	University at Buffalo	Graduate Student
Andrea	Calderon	2024	Biomedical Sciences	University at Buffalo	Continuing Student
Kellyann	Cleary	2024	Medical Lab Science	University at Buffalo	Continuing Student
Kymani	Getfield	2024	Nuclear Medical Technology	University at Buffalo	Continuing Student
Li Yi	Hu	2024	Biochemistry	University at Buffalo	Continuing Student
Sabrina	Johnson	2024	Computer Science	Cornell University	Graduate Student
Avein	Joseph	2024	Electrical Engineering	University at Buffalo	Continuing Student
Doaa	Kanan	2024	Biological Science	University at Buffalo	Graduate Student
Andrea	Kyaw	2024	Computer Science	University at Buffalo	Continuing Student
Aisha	Makama	2024	Biochemistry	University at Buffalo	Continuing Student
Taona	Maphosa	2024	Biological Sciences	University at Buffalo	Continuing Student
Ugonna	Ofurum	2024	Computer Science	University at Buffalo	Continuing Student
Eghosa	Oshodin	2024	Public Health	Woodhull Hospital, NYC	NYU Intern
Sebastian	Pardo	2024	Biological Sciences	University at Buffalo MA Biological Sciences	Master's Student
Marvin	Petion	2024	Biomedical Sciences	University at Buffalo	Continuing Student

Gabriella	Santos	2024	Biomedical Engineering	University at Buffalo	Continuing Student
Shadine	Stoney	2024	Public Health	New York City	Seeking Employment
Ruth	Tefera	2024	Law	University at Buffalo	Continuing Student
Kayla	Yan	2024	Computer Science	University at Buffalo	Continuing Student

Annakay	Adamson	2018	Biological Sciences	UB Jacobs School of Medicine	Medical Student
Gregory	Adams, Jr.	2018	Psychology	Brookfield Properties	Operating Engineer
Abshiro	Ali	2018	Biology/Biological Sciences	UB Jacobs School of Medicine	Post-Bacc Student
Deborah	Amponsah	2018	Pre-Law/Philosophy	Martin Clearwater & Bell LLP	Associate Attorney
Michael	Banjoko	2018	Biomedical Engineering	Prevail Therapeutics	Senior Scientist
Gerardo	Barrera Giron	2018	Environmental Engineering	AECOM	Enviormental Engineer II
Kwaku	Bonsu	2018	Biological Sciences	UB Jacobs School of Medicine & Biomedical Sciences	Medical Student
Tanzania	Bussey	2018	Pharmacology & Toxicology	UB MS Biomedical Sciences	Graduate Student
Edgar	Claudio	2018	Pharmacology & Toxicology	UB School of Pharmacy	Pharmacy Student
Temara	Cross	2018	Biomedical Sciences	UB Jacobs School of Medicine	Medical Student
Chimaobi	Ezeilo	2018	Computer Sciences	University of Texas at Austin	MS in Computer Science
Jhanna	Flora	2018	Biological Sciences	University at Buffalo MS Biotechnology	Graduated 2021
Steven	Herrera	2018	Mechanical Engineering	University at Buffalo MS Mechanical Engineering	Graduated 2021
Charitie	Hill	2018	Chemistry	Q^2 Solutions	Laboratory Project Coordinator
Nasiah	Johnson	2018	Electrical Engineering	Lockheed Martin	Systems Engineer
Brianna	Kinley	2018	Psychology	UB Jacobs School or Medicine and Biomedical Sciences	Medical Student
Jessica	Maxwell	2018	Biochemistry	Geisinger Commonwealth SOM	MBS 2024, Researcher
Shelbi	Molin	2018	Political Sciences	Office of NYS Attorney General	Attorney General Fellow
Keiona	Nance	2018	Exercise Science	Jamestown Public Schools	Certified Athletic Trainer

CSTEP 2025 SUMMER RESEARCH PROGRAM STAFF

CSTEP Director & PI
Shanna Crump-Owens

CSTEP Administrative Assistant (Retired)
Patricia "Tia" Greer

CSTEP Post-Doctoral Research Associate
Rebecca Borowski, PhD

Research Methods Course Instructor
Barnard Onyenucheya, PhD

Poster Competition Coordinator
Lavone Rodolph, PhD

Graduate Assistants
Asia Alexander
Jermaline Catul
Jasmine Epps
Doaa Kanan
Justin Nyantakyi
Holliday Sims

Student Assistant
Andrea Botchway

CSTEP Interns Participated in Tech Buffalo's 2025 PowerUp Tech

This summer, our interns engaged in a multi-day tech immersion experience hosted by Tech Buffalo, joining students from across Western New York for a series of career-building events and a competitive design challenge. These experiences gave them direct exposure to Buffalo's tech ecosystem, access to local professionals, and opportunities to apply their skills in high-pressure, real-world scenarios.

Exploring Buffalo's Tech Landscape at Larkin Square
Friday, June 20, 2025

Our CSTEP interns attended a half-day event at **Larkin Square** focused on career readiness and professional networking. The event brought together interns from various programs to learn about the local innovation economy and sharpen their job-seeking skills.
The morning featured panel discussions across several tech sectors, including:

- FinTech and Financial Innovation
- FoodTech and Food Systems
- Healthcare and Medical Technologies
- Engineering and Advanced Manufacturing

They also participated in breakout workshops on resume building, LinkedIn branding, and interview preparation, helping them prepare for future internship and job opportunities.

PowerUp Tech Design Challenge: Innovation in Action
June 26–27, 2025

Our interns participated in the **PowerUp Tech 2025 Design Challenge**, a fast-paced, two-day competition hosted by **Tech Buffalo**. This event brought together college students from across Western New York to work in teams and develop tech-based solutions to real-world issues faced by local nonprofits.
Each team was given a challenge and *just 48 hours* to:

- Identify the core problem
- Research the needs of the nonprofit and potential users
- Brainstorm possible solutions
- Build out a digital concept or prototype
- Present their final idea to a panel of judges

Our interns worked closely with peers, gaining hands-on experience in teamwork, critical thinking, and pitching under pressure. For many, it was their first time participating in this kind of rapid innovation challenge. Despite the time crunch, they made creative decisions on the fly and stepped up as leaders within their teams.

Congratulations!

We are are proud to recognize **five interns who were on winning teams**. Their outstanding performance exhibited their leadership, perseverance, and ability to thrive under pressure.

- **Daija Brewer** – Biological Sciences
- **Paris-Riana Campbell** – Computer Engineering
- **Hulaye Diallo** – Computer Engineering
- **Dana Diaz** – Neuroscience
- **Oreomo Sosanya** – Electrical Engineering
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These students demonstrated the talent, professionalism, and drive that define our mission to prepare underrepresented scholars for success in STEM and health-related fields.

University at Buffalo The State University of New York

2025 CSTEP SUMMER RESEARCH INTERNS

2025 CSTEP Research Interns at Tech Buffalo at Seneca One- Downtown Buffalo

NEW YORK STATE CSTEP COLLEGIATE SCIENCE & TECHNOLOGY ENTRY PROGRAM

preparing science, technology & licensed professionals since 1986