

KEI KEBREAU

(207) 907-6142 | kkebreau@posteo.net

EDUCATION

City University of New York

Ph.D., Computer Science

New York, NY

Fall 2024 to present

Cheyney University of Pennsylvania

B.S., Mathematics and Computer Science

Cheyney, PA

2017 to 2021

Summa cum laude

RESEARCH EXPERIENCE

City University of New York

Graduate Researcher

New York, NY

2024 to present

- First author on an abstract submitted to SIGGRAPH 2025, titled “A Workflow for Generating and Animating Lookalike Avatars for Remote Collaboration.”
- Mentored and supported a team of undergraduate researchers in developing a workflow for avatar generation and an automated motion capture data clean-up process using recurrent neural networks.

Cheyney University of Pennsylvania

Undergraduate Research Assistant

Cheyney, PA

February 2020 to May 2021

- Evaluated the effectiveness of OpenSmile 2.0 and EmoPy toolkits in Python for integration into the Audiovisual Labeled Emotion Research Platform, an audiovisual recording device applicable in human activity recognition research.
- Collected and processed data using Python and R to facilitate statistical analysis and development of machine learning models.

Brookhaven National Laboratory

Undergraduate Research Assistant

Upton, NY

June 2018 to August 2018

- Used GNU Octave, a MATLAB equivalent, to manipulate and assess geometric models of cadmium selenide nanoclusters for DFT (density functional theory) optimization by Gaussian ‘16 software.
- Recreated findings in physical chemistry through computational analysis, demonstrating the viability of using computational DFT optimization to explore additional inorganic nanoclusters, resulting in cost and time savings in laboratory experiments.

TEACHING EXPERIENCE

Cheyney University of Pennsylvania

Undergraduate Teaching Assistant

Cheyney, PA

January 2019 to February 2020

- Supervised mathematics courses from Survey of College Mathematics to Linear Algebra 1 as well as Introduction to Programming 1 and 2.

- Conducted weekly supplementary teaching sessions for each class to review course material and strengthen understanding of key concepts.

Cheyney University of Pennsylvania

Cheyney, PA

Peer Tutor

January 2018 to February 2020

- Held tutoring sessions three times a week one-on-one and in groups of up to five.
- Worked with students to develop their mathematical skills and general reasoning abilities.
- Helped students analyze and understand mathematics, physics, and computer science concepts such as integration, electromagnetism, and recursion.

PRESENTATIONS

Simulation of cadmium selenide (CdSe) nanoclusters using density functional theory and time-dependent density functional theory 2018

HONORS & AWARDS

National Science Foundation CSGrad4US Fellow 2024

Philadelphia AMP Excellence Award in Physics 2018

LEADERSHIP & OUTREACH

Co-founded Cheyney University's Sexuality and Gender Alliance 2019

PROFESSIONAL EXPERIENCE

Thrive Scholars

New York, NY

College Readiness Teaching Assistant

July 2024 to August 2024

- Assisted in the delivery of a college readiness curriculum for a cohort of approximately 170 students, focusing on math and academic skills essential for higher education success.
- Facilitated classroom activities, including lesson planning, student engagement, and community-building efforts to foster a supportive learning environment.
- Supported instructional staff in preparing and executing daily class sessions, including pre-class set-up, snack distribution, attendance, data collection, and post-class wrap-up.
- Coordinated and participated in special events, such as college tours and fairs, enhancing students' exposure to higher education opportunities.
- Managed up to 40 hours of weekly responsibilities, with additional hours for special events and overtime as needed, ensuring comprehensive support for both students and faculty.

Meta

New York, NY

Data Labeling Analyst

January 2024 to July 2024

- Used reinforcement training to train a generative large language model to verify its own generated text.
- Labeled and cleaned data according to quality control best practices.

- Collaborated with a distributed team to create an AI model targeted for use by billions of users.

Mastercard

New York, NY

Software Engineer

August 2021 to August 2023

- Planned and delegated the execution of multiple test plans for a data analysis application used by high-value clients, enabling us to support 3 times the client base on the same infrastructure.
- Developed code and documentation for an automated testing data generation tool in Rust and C#, resulting in substantial time savings for engineers and reduced client downtime due to undetected bugs.
- Constructed real-time performance monitoring dashboards leveraging SQL and Splunk, using software usage data to facilitate seamless product health monitoring for external stakeholders and developers.