

Andrew Bae

Website: andrewbae.me
LinkedIn: linkedin.com/in/werdnabae
Github: github.com/werdnabae

abae@andrew.cmu.edu
(518)-951-9293
US Citizen

EDUCATION

Carnegie Mellon University Expected May 2029
Ph.D. in Engineering
Pittsburgh, PA
• Advisor: Prof. Sean Qian

Carnegie Mellon University Expected May 2026
M.S. in Machine Learning
Pittsburgh, PA
• GPA: N/A

Stony Brook University May 2024
B.S. in Applied Mathematics and Computer Science
Stony Brook, NY
• GPA: 3.8/4.0, *summa cum laude*

WORK EXPERIENCE

MIT Lincoln Laboratory June 2024 - Aug 2024
Machine Learning Engineer Intern
Lexington, MA

Lawrence Berkeley National Laboratory May 2023 - Aug 2023
Software Engineering Intern
Berkeley, CA

Brookhaven National Laboratory Jan 2021 - Sep 2021
Software Engineering Intern
Upton, NY

RESEARCH EXPERIENCE

Carnegie Mellon University (Advisor: Prof. Sean Qian) Aug 2024 - Present
Graduate Research Assistant
Pittsburgh, PA

Stony Brook University (Advisor: Prof. Susu Xu) Sep 2021 - May 2023
Undergraduate Research Assistant
Stony Brook, NY

PUBLICATIONS

- Jiajun Tian, Ahmad Reza Motezakker, Ruifu Wang, **Andrew Bae**, Andrei Fluerasu, Tomas Rosen, and Benjamin S. Hsiao. "Probing the Self-Assembly Dynamics of Cellulose Nanocrystals by X-ray Photon Correlation Spectroscopy." In review, *Journal of Colloid and Interface Science* (2024).
- Andrew Bae** and Susu Xu. "Discovering and Understanding Algorithmic Biases in Autonomous Pedestrian Trajectory Predictions." *Proceedings of the Twentieth ACM Conference on Embedded Networked Sensor Systems* (ACM SenSys), (2022).

PRESENTATIONS

- "Discovering and Understanding Algorithmic Biases in Autonomous Pedestrian Trajectory Predictions", ACM SenSys, oral presentation, (2022)

TEACHING

AMS 341 - Linear Programming <i>Teaching Assistant (Instructor: Prof. Esther Arkin)</i>	Fall 2023 <i>Stony Brook University</i>
CSE 214 - Data Structures <i>Teaching Assistant (Instructor: Prof. Praveen Tripathi)</i>	Spring 2023 <i>Stony Brook University</i>
HON 101 - Honors College Freshman Seminar <i>Teaching Assistant (Instructor: Prof. Jonathan Friedman)</i>	Fall 2022 <i>Stony Brook University</i>
AMS 326 - Numerical Analysis <i>Teaching Assistant (Instructor: Prof. Yuefan Deng)</i>	Summer 2021 <i>Stony Brook University</i>

RESEARCH MENTORSHIP AND ADVISING

William Hong <i>High school intern. Now undergraduate CS student at UPenn.</i>	June 2022 - Aug 2022 <i>Stony Brook University</i>
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SELECTED AWARDS

Chancellor's Award for Student Excellence	The State University of New York, 2024
Barry M. Goldwater Scholarship	Goldwater Foundation, 2023
Undergraduate Researcher of the Month (April)	Stony Brook University, 2023
Tau Beta Pi Scholarship	Tau Beta Pi, 2023
Weinig Foundation Scholarship	Stony Brook University, 2023
Undergraduate Summer Research Fellowship	Stony Brook University, 2022
Undergraduate Summer Research Fellowship	Stony Brook University, 2021
Presidential Scholarship	Stony Brook University, 2019
Honor Graduate	Shaker High School, 2019

HONOR SOCIETIES

Phi Beta Kappa
Tau Beta Pi
Sigma Chi

SKILLS

Programming Languages	Python, MATLAB, Java, SQL, JavaScript
Python Libraries	PyTorch, Pandas, Scikit-learn
Tools	Git/GitHub, Docker, AWS
Languages	English (native), Korean (fluent)