

Education

- **University of Pennsylvania**, Philadelphia, PA. 2021 - Present
 - **PhD**, *Computer Science*. Advisor: Benjamin C. Pierce
- **Wesleyan University**, Middletown, CT. 2017 - 2021
 - **BA**, *Computer Science* (with high honors) and *Mathematics*, GPA 3.98/4.00.

Research

- *Languages with Potential: Types & Recurrences for Formal Amortized Analysis*. Undergraduate Honors Thesis, 2021.
- *Denotational Recurrence Extraction for Amortized Analysis*, **Joseph W. Cutler**, Daniel R. Licata, and Norman Danner. Proceedings of the ACM SIGPLAN International Conference on Functional Programming, 2020.

Work Experience

- **Technical Intern**, Correct Computation, Inc. Summer 2021
Worked on Affix, a tool for generating C code models of binaries.
- **Research Intern**, Max Planck Institute for Software Systems (virtual) Summer 2020
Research in refinement type-based techniques for resource analysis. Implemented λ -amor, a highly expressive refinement type system for amortized analysis.
- **University Research Fellow**, Wesleyan University Summer 2018, 2019
Did research in resource analysis, working to extend prior work on automated recurrence extraction to deal with amortized analysis. Resulted in a paper published at ICFP '20.
- **Course Assistant**, Wesleyan University 2018 - 2021
Graded assignments, led TA sessions, and aided with labs.

Awards

- *NSF Graduate Research Fellowship* (2022-2027)
- *Michael Rice Prize*, Awarded to a senior for excellence in computer science. (2021)
- *Phi Beta Kappa* (2021)
- *Shortt Prize*, Awarded to a junior for excellence in mathematics. (2020)
- *Robertson Prize*, Awarded to a sophomore for excellence in mathematics. (2019)
- *PLMW @ ICFP Funding* (2020)
- *Cornell, Maryland, and Max Planck Pre-Doctoral Research School (CMMRS) Travel Award* (2019)

Service

- **Volunteer**, #ShutdownPL ICFP (2020)
- **Computer Science Club Steering Committee**, Wesleyan University (2019-2021)
Planned, organized, and hosted events for the computer science community at Wesleyan