Rose Silver

(203)-506-4156
rosesilv@andrew.cmu.edu
https://rosesilver.github.io/

Education

Sept 2021 – Current	PhD in Computer Science *Advisors: Elaine Shi and Jonathan Ullman* *Interests: Theory, Privacy, Data Structures* First three years were at Northeastern University.	Carnegie Mellon University
Sept 2017 – May 2021	BS in Mathematics, Minor in Physics (4.00/4.00)	Northeastern University

Publications

SODA 2025	Private Mean Estimation with Person-Level Differential Privacy • Agarwal S, Kamath G, Majid M, Mouzakis A, Silver R, Ullman J.
ITCS 2024	Differentially Private Medians and Interior Points for Non-Pathalogical Data • Aliakbarpour M, Silver R, Steinke T, Ullman J.
FPSAC 2022	Box-Ball Systems and RSK Tableaux • Drucker B, Garcia E, Gunawan E, Silver R.

Experience

Sept 2021 – Present	*PhD Student in Theoretical Computer Science* • Interested in developing theoretically sound algorithms that can be applied to real-world challenges in privacy and data structures. • Select coursework includes: Advanced Algorithms (student and TA), Intensive Systems, Advanced Machine Learning, and Sublinear Algorithms
Jun 2021 – Aug 2021	*Software-Engineering Intern*, Kythera Space Solutions • Worked within an agile team to develop a satellite management application • Using C++/Qt, I independently developed a full-stack, multi-featured window within the application and presented the product to 6 customer representatives • Refactored and modernized 1000+ lines of legacy code
May 2020 – Aug 2020	*Math Researcher*, UCONN Mathematics Research Experience for Undergraduates • Co-authored paper *"Box-ball systems and RSK tableaux"* which appeared in the *33rd Conference on Formal Power Series and Algebraic Combinatorics* (FPSAC)
Jul 2019 – Dec 2019	*Applied Research Co-Op*, E Ink Corporation • Developed techniques for fundamental circuit modeling of devices • Implemented MATLAB and Excel VBA analysis tools to model relationships between device electrical measurements and optical performance

Awards

2020, 2021	Northeastern University President's Award • Awarded to the 10 top students in graduating class of roughly 3000
2018	Undergraduate Women in Physics Research Award • Awarded to a woman in the physics department based on research
2018, 2020	Lawrence Award for Undergraduate Scholarship • Awarded to 10-15 students in the physics department

Skills

C, C++, Python, Java, TensorFlow, Github, Qt, MATLAB, Sage, Mathematica