Kenny Zhang

April 2024

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Education

Massachusets Institute of Technology (2023-Present)

- Pursuing PhD in Computer Science

Stony Brook University (2023)

- B.S. with Honors in Computer Science
- B.S. in Mathematics

Research and Publications

GraphZeppelin: Storage-Friendly Sketching for Connected Components on Dynamic Graph Streams (SIGMOD 2022)

- Optimized linear graph sketching algorithms to dynamically process large dense graphs.

Automatic HBM Management: Models and Algorithms (SPAA 2022)

- Evaluated HBM management policies on a simulator of the algorithmic model.
- Validated properties of the algorithmic model on real hardware.

Teaching Assistance

- **Spring 2024**: TA for 6.5080 Multicore Programming at MIT.
- **Spring 2023**: TA for CSE220 Systems Fundamentals I at Stony Brook.
- **Fall 2020**: TA for CSE350 Theory of Computation (Honors) at Stony Brook.

Work Experience

- **2021–2022**: IBM Summer Research Intern

Projects and Activities

Competitive Programming Club (2019–2023)

- **2023**: ACM ICPC North America Championship: 19th place team
- **2021**: ACM ICPC Greater New York Regional competition: 3rd place team
- **2020–2021**: Stony Brook University's ACM ICPC Selection Contest: 1st place individual

Built a Working Game of Tetris in Conway's Game of Life (2016–2017)

- Assembled Game of Life circuits to create a programmable computer.
- Leveraged a more suitable file format to reduce processing time by 4 orders of magnitude.
- The project was viewed over 250k times, gained over 1k upvotes, was mentioned in StackOverflow's Podcast #116, and had an article about it on Hackaday.

Programming Experience

- Proficient in C, C++, Java, JavaScript, and Python.
- Knowledgeable in MATLAB, R, and SQL.

Relevant Classes

MIT

- 6.5240 Sublinear Time Algorithms
- 6.5440 Algorithmic Lower Bounds: Fun With Hardness Proofs
- 6.7201 Optimization Methods

Stony Brook

- Analysis of Algorithms (Honors)
- Data Structures
- Compiler Design
- Computational Biology
- Computational Geometry
- Operating Systems
- Theory of Computation (Honors)
- Software Engineering
- Analysis in Several Dimensions
- Topology and Geometry
- Applied Complex Analysis
- Linear Algebra
- Applied Algebra
- Calculus IV with Applications
- Survey of Probability and Statistics
- Finite Mathematical Structures