

Austin Yao

(919) 593-3837 | austin.y.yao@gmail.com | ausyao.me | Bay Area, CA

EDUCATION

University of Pennsylvania

Aug 2021 - May 2025

Philadelphia, PA

- B.S.E/M.S.E in Computer Science | Minor in Mathematics | GPA: 3.94 / 4.00
- **Relevant Coursework:** Advanced Algorithms, Operating Systems, Distributed Systems, Machine Learning, Computer Architecture, Game Theory, Convex Optimization, Compilers, Randomized Algorithms, Marketing Probability Models

EXPERIENCE

Aven

Jul 2025 -

Software Engineer

Bay Area, CA

- Aven Flexible Cash, Unit Economics

Morgan Stanley

Jun 2024 - Aug 2024

Technology Intern

New York, NY

- Implemented a service availability dashboard that centralized logging from cloud and virtual machine instances.
- Used Java and Swagger for development of tool that was used by the Operations Technology division of 50 members.
- Developed a no-code interface for users to generate custom data visualizations using Python, Angular, and Typescript.

University of Pennsylvania CS Department

Jan 2022 - May 2025

Head Teaching Assistant

Philadelphia, PA

- Managed a staff of 40 TAs, created exams and problem sets, and handled course logistics for 220 students.
- Instructed 15+ students in weekly recitation and office hours on recursive algorithms, graph theory, and data structures.
- Led office hours for graduate level distributed systems course.

PROJECTS

Ed Discussion GPT

Jul 2024 - Aug 2024

Python, LLMs, Selenium

- Developed tool to generate answers to student questions on Ed Discussion that can be approved and set visible by a TA.
- Scrapped 5000 past questions using Selenium to pass into LLM as training data that was then stored in a vector database.

Distributed Storage System

Apr 2024 - May 2024

C++, Socket Communication

- Programmed a multithreaded, distributed key-value store modeled on Google's BigTable, allowing users to upload, modify, and download data across multiple servers using a Google Drive UI.
- Implemented distributed commit, a load balancer, periodic snapshotting for recovery, and primary node fault tolerance.

Operating System Kernel

Nov 2023 - Dec 2023

C, Threads, Scheduling

- Built an operating system kernel to manage user threads and be integrated with custom file system.
- Implemented a round-robin with priority level scheduler that executed, blocked, and cleaned up user created threads.
- Developed shell interface for the user that allowed sleep, SIGINT, and modifiable priority levels of threads.

Ethereum Space Efficiency

Feb 2023 - May 2023

Golang, Python, File I/O, Matplotlib

- Conducted research and data analysis on the accumulated size of dirty nodes in Ethereum's Merkle Tries.
- Programmed with Ethereum's open-source codebase in Go and collected data by simulated transactions with Python.
- Authored paper for Scroll, a Sequoia Capital backed start-up developing a zero-knowledge Ethereum virtual machine.

SKILLS

Languages

Python, Typescript, C++, Java, SQL