William Yang

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EDUCATION

Massachusetts Institute of Technology — **Cambridge, MA**
Master of Engineering in Computer Science | GPA: 5.0/5.0 — *Jun. 2026*

Massachusetts Institute of Technology — **Cambridge, MA**
Bachelor of Science in Computer Science and Mathematics, Minor in Writing | GPA: 4.9/5.0 — *Jun. 2025*

TECHNICAL SKILLS

CS Coursework: Grad Distributed Systems, Grad Database Systems, Grad Deep Learning, Operating Systems, Compilers, Advanced Algorithms, Advanced Software Design, Grad Computer Vision, Grad Natural Language Processing, Web Development
Languages: Python, C++, Go, Java, Typescript, JavaScript, C, Rust, Ruby
Frameworks: ReactJS, Node.js, JUnit, Mockito, Jest, PyTorch, NumPy, MatplotLib, SciPy

EXPERIENCE

Stripe — **Seattle, WA**
Software Engineer Intern — *Jun. 2025 – Aug. 2025*

- Worked on developer productivity team to speed up user requests **by 3 times** for data engineering **AWS machines** for 700 engineers.
- Wrote cron jobs in **Puppet/Ruby** that maintained standby pools of **300 remote hosts** for GPU and high compute data machines.
- Enabled instance storage caching on data engineering remote machines, speeding up git operations and build times by **5 times**
- Created update workflows to maintain and update packages/repos for a pool of **250 EBS** and attach them to remote hosts on user request.
- Configured **Grafana dashboards** and **10 alarms** to monitor workflow, cron jobs, and remote machine health data, ensuring reliability.

MIT Daniela Rus Lab — **Cambridge, MA**
Machine Learning Researcher — *Sep. 2024 – Present*

- Worked on multi-drone navigation algorithms to tag whales in live ocean environments, researched published in **ISER 2025**.
- Trained and optimized a vision model to identify bounding boxes of whales in live drone footage images.
- Built an end-to-end drone simulation in Python where a drone swarm used vision algorithms to target and then land on a pod of whales.
- Created a new point cloud registration algorithm to accurately assign drones to an individual whale to land on in ocean settings

Amazon — **Seattle, WA**
Software Developer Engineer Intern — *Jun. 2024 – Aug. 2024*

- Collaborated with multiple Amazon Stores teams to research and build a **SQL** database in **AWS Open Search** for **90 thousand** fashion product items. I also implemented a **10ms latency** data stream pipeline in **AWS Lambda** to update the database with new products.
- Conducted **5 technical demos** to improve database features and presented to Amazon Fashion Tech directors.
- Reduced search latency times in the fashion products internal database by **ten-fold** through optimizing AWS tooling.
- Fully integrated a customer feedback and review form for fashion products on the Amazon Stores site with **RestAPI** backend.

MIT Winslow Lab — **Cambridge, MA**
Software Developer — *Jan. 2025 – Jun. 2025*

- Built data ingestion pipeline that ran in Docker and stored **10TB** worth of **Kafka message queue** alerts to a **PostgresSQL database**.
- Setup a live integration testing framework in **GitHub CLI** using **5** docker containers to simulate critical system components.
- Built a **FlaskApp** website with **ReactJS** displaying received records and email alert **3 thousand** users when neutrino events are detected.

PROJECTS

Go Database – [link]

- Built a fully function SQL database in Go consisting of a query parser, file storage, and a buffer pool cache storage system
- Implemented a BTree data structure to store database elements, decreasing typical database query speeds by **three times**
- Integrated database scheme onto various cloud computing frameworks such as **AWS Lambda, Spark,** and **Snowflake**

Go Sharded Key Value Store –

- Implemented Raft **in Go**, a fault-tolerant log consensus algorithm which ensures multiple servers would agree on a shared log state in the face of crashes, network partitions, or multiple machine failures
- Built a fault-tolerant sharded key value store in Go that supported migrating data between shards on various servers while ensuring client data queries remain consistent

C++ Poker Bot – [link]

- Built a C++ poker bot to play a variant of Texas Hold'Em for the MIT PokerBots competition using counterfactual regret minimization. My team's bot **placed second** among C++ poker bots in the final tournament.

LEADERSHIP

Deep Learning Teaching Assistant

- Wrote lecture notes on generative models, representation learning, and other advanced ML topics. Held office hours three times a week.

Abstract Algebra Teaching Assistant

- Graded weekly homework and four quizzes throughout the semester. Monitored course forum to answer student homework questions.