

MITCHELL GRAY

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Education

Georgia Tech, Atlanta, GA

Master's of Science, Computer Science

Jan 2025 – Dec 2027

Machine Learning

Cornell University, Ithaca, NY

Bachelor's of Science, Computer Science

Aug 2020 – May 2024

Minor, Operations Research Information Engineering

30 Graduate Credits

Deans List: FA 2022, FA 2023, SP 2024

Relevant Coursework: Applied High-Performance and Parallel Computing · Distributed Computing · Cloud Computing · Systems Programming · Info Networks · Databases · Operating Systems · Software Testing · AI

Technical Skills

Languages: Java · C++ · Python · SQL · Bash · C · Rust

Software & Tools: Cloud Platforms · Microservices · REST · Databases · Containerization · Container Orchestration · CI/CD · Source Control · Dependency Managers · Build Systems · Unit Testing · Python Data Analytics · BI

Relevant Work Experience

Oracle

June 2024 – Present

Software Developer I | C, Java, PL/SQL, OracleDB, Raft

Redwood City, CA

- Adding functionality to the Globally Distributed Database on the Shard Native Replication team · Writing Distributed Systems code in C, Java, and PL/SQL · Unit-Testing large-scale software · Utilizing **Raft** for consensus.

Gecko Robotics

May 2023 – Aug 2023

Software Engineer Intern | C++, Python, CMake, C, Google Cloud, CI/CD

Pittsburgh, PA

- Worked on Robot Controls team · Revamped Robot & Data Acquisition emulators · Implemented new communications protocol · Wrote code for an asynchronous distributed system · Client/Server TCP networking · Replaced Visual Studio build-system with CMake · Added emulator support for calibratable data · Integrated **Github Actions** and **Poetry**.

CMU-Software Engineering Institute

May 2022 – May 2023

DevOps Engineer Intern | Python, Rust, Bash, Neo4j, Docker, Kubernetes, CI/CD

Pittsburgh, PA

- Updated and created **Gitlab CI** pipelines · Developed **Python**, **Rust**, and **Bash** code · Created **REST API** data visualizations · Used **ArgoCD** to deploy **AWS EKS** cluster · Improved efficiency of the company by using **Python**, **Neo4j**, **NeoDash**, and the PageRank algorithm to create metrics / long-term documentation.

Cornell University

Aug 2022 – May 2024

Teaching Assistant & Head Proctor | Java, Python, SQL

Ithaca, NY

- Received the Course Staff Exceptional Service Award and was nominated twice · Created and led review sessions for hundreds of students · Taught Databases, Object Oriented Programming, and Physics Lab · Held class sections weekly.

Research

ADOPT: Adaptively Optimizing Attribute Orders | Java, AWS | [Github](#) | [VLDB](#)

Jan 2022 – May 2024

- Paper accepted and presented at **VLDB 2023** · Worked on transforming the query engine into a **distributed query engine** · Created dynamic data visualizations for the ADOPT query engine using **Java**, **JavaFX**, and **GraphStream**.

Projects

Distributed Unit Testing (SPEED) | Masters Project | Java, Cloud | [Github](#) | [BOOM](#)

Aug 2023 – May 2024

- 1 of 44 projects selected for BOOM 2024. My team and I created a Scalable Platform for Efficient Execution of Distributed testing. The fault-tolerant system contains a leader node that orchestrates worker nodes that run **JUnit** tests on **Java** code. The worker nodes send test results to the controller. Test results are shown in the frontend.

Sharded Key Value Store (KVS) | Distributed Computing | Java, Paxos, 2PC | [Github](#)

Jan 2023 – May 2023

- My partner and I made a sharded transactional KVS that uses **Paxos** for replication and **2PC** for multi-key updates. We implemented an Exactly-once RPC protocol on an asynchronous network, a primary-backup protocol, Paxos, and 2PC.

Cornell Meetup | Cloud Computing | Azure, CosmosDB, Python, WebDev | [Github](#) | [BOOM](#)

Aug 2022 – Dec 2022

- 1 of 32 projects selected for BOOM 2023. My partner and I created a social media web app that allows users to create groups, chat with friends, and see where their friends are when on campus. Accounts details were obfuscated and salted.

Organizations

Engineering Entertainment Design Club | Lead Programmer & Secretary | [Club](#)

Aug 2022 – May 2024

- Created entertainment robots · Worked on our website · Led projects and mentored all software teams, over 20 mentees.

Cornell Tradition Fellowship | Fellow | [Fellowship](#)

Aug 2020 – May 2024

- Contains < 4% of all students · Keep good grades · Work and volunteer during the school year · Do 100+ hours of each.