

EDUCATION

University of Minnesota-Twin Cities

Bachelor of Science, Computer Science

Sep. 2022-Dec. 2025

Minneapolis, MN

- **Cumulative GPA:** 3.77/4.0 [Dean's List Award: Fall 2025, Spring 2025, Fall 2024, Spring 2024, Fall 2023, Spring 2023]
- **Coursework:** DSA, Software Engineering, Database Systems, Operating Systems, Internet Programming, AI, ML Essentials

EXPERIENCE

Undergraduate Teaching Assistant, University of Minnesota

Sep. 2023-Dec. 2025

- Delivered one-on-one and lab support to 100+ students per semester across **Python**, **Java**, and **computational linear algebra** topics foundational to ML and data workflows, improving student confidence and academic performance across **3+ sections**.
- Designed lab exercises and statistical analyses using **Google Colab**, **NumPy**, and **Matplotlib**, supporting instructional delivery for 300+ assignment submissions.
- Automated grading workflows for **600+ assessments** with **Gradescope**, enabling faster turnaround & feedback cycles by **20-30%**.

Test Engineering Intern, IDEaS Revenue Solutions

May 2025-Aug. 2025

- Built RESTful APIs in **Java** for 7+ **AWS-hosted microservices** (e.g., pricing, analytics), integrating **SQL/MongoDB** validations and **Datadog**-based telemetry; authored JUnit and Postman test suites for automation.
- Participated in **Agile** SDLC processes, resolving 20+ production issues through root-cause analysis and regression testing, boosting service reliability by 30%.
- Enhanced **CI/CD** pipelines via **GitHub Actions** and **Terraform**; integrated dashboards using **Datadog** and **AWS CloudWatch** to monitor 25+ deployments and infrastructure.

Software Design Engineer Intern, KEB America, Inc.

May 2024-Aug. 2024

- Refactored 1,500+ lines of monolithic **Python 2.0** code to modular client-server architecture in **Python 3.12**, boosting maintainability and testability.
- Designed black-box and integration test suites in **Python** and **C#** for 10+ embedded features; increased automated test coverage by 40% and reduced manual QA effort by 25%.
- Collaborated with cross-functional teams using **GitLab**, **Jira**, and **Confluence** to track and resolve 50+ development and QA tickets across software lifecycle stages.

Residence Halls Office Assistant, University of Minnesota

Jan. 2023-May 2025

- Managed check-ins/outs, key tracking, and front-desk operations for **700+ residents** while responding to daily service needs.
- Maintained organized records for **100+ lost-and-found cases** and **1000+ item loans** through spreadsheets and check-out databases.

Orientation Leader, University of Minnesota

Apr. 2023-Sep. 2023

- Led daily orientation groups of **15–20 new students** through campus tours, presentations, and community-building activities.
- Helped **7,000+ students** by supporting orientation events and assisted **350+ volunteers** with training, coordination, and support.

PROJECTS

Database LLM Chatbot | Python, Git, FastAPI, LangChain, Pydantic, SQLAlchemy

Oct. 2025-Dec. 2025

- Designed a **5-agent LLM chatbot** that turns natural-language questions into validated SQL queries and visualizations across Snowflake, Databricks, PostgreSQL, and MySQL, with **5–10 second** response times.
- Implemented **schema-aware RAG logic**, SQL safety checks, async execution, Plotly charting, multi-provider LLM support (Gemini APIs), caching, and pooled DB connectors for end-to-end workflows.
- Reached **80–95% SQL accuracy**, blocked unsafe queries, enforced limits, and added full logging + unit tests—cutting manual SQL effort by **70%+** and enabling on-demand analytics from simple user prompts.

Distributed Cache System | Python, Git, REST APIs

Aug. 2025-Oct. 2025

- Implemented a production-grade distributed caching system using **consistent hashing** for automatic data distribution across nodes, achieving 1.07M+ hash ring operations/second with 0.0009ms latency and 23% data movement when scaling.
- Built HTTP-based cache nodes with RESTful APIs, TTL support, and thread-safe in-memory storage, delivering 649 writes/second and 674 reads/second with **100% hit rate** for cached data.
- Designed smart client library with automatic request routing, **fault tolerance**, and **replication support**; demonstrated **node failure recovery** and **graceful degradation** in multi-node cluster scenarios across **5 comprehensive demo workflows**.

SKILLS

Programming Languages: Java, Python, C, C++, Go, C#, SQL, Bash

ML/AI: LangChain, Hugging Face, PyTorch, scikit-learn, NumPy, Pandas, Matplotlib, TensorFlow, Plotly, Prompt Engineering

Systems & Cloud: AWS (S3, Lambda, EC2, ECS, CloudWatch, SNS, Glue), Docker, Linux/Unix, Terraform, Git, GitHub Actions

Databases & Web: MySQL, MongoDB, JUnit, PyTest, Jira, Datadog, REST APIs, JavaScript, HTML/CSS

EXTRA-CURRICULAR

Code The Gap, UMN-Twin Cities

Jan. 2023-Dec. 2025

Treasurer

Minneapolis, MN

- Managed budgets and operations enabling 30+ volunteers to teach Python to K–12 students, expanding outreach to 3 new schools.