

Steven Chen

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Current master's student at Northeastern University, actively contributing to the NU Rover Club. Experienced in AI/ML model training, software development, and distributed systems. Proven ability to design and implement robust, high-performance software, debugging across the SDLC, and solving complex technical challenges.

SKILLS

Languages: C/C++, Python, Go, JavaScript, C#, Java, HTML/CSS

Frameworks & Tools: gRPC, React, Node.js, Docker, Azure DevOps, dSPACE, RTMaps

Databases & Data: SQL, NoSQL, RocksDB

Systems & Other: Linux, Git, Bash, WSL, Visual Studio Code, Matlab, WireShark, Unity

EDUCATION

Northeastern University — M.S., Robotics (Boston campus)

Expected Graduation 2027

University of California, Davis — B.S., Computer Science

2023

Relevant coursework: Data Structures, Operating Systems, Machine Learning, Computer Architecture, Algorithm Design and Analysis, Computer Security, Web Design, Computer Network, Programming Languages.

PROFESSIONAL EXPERIENCE

Remote AI Trainer, Coding Expertise — Outlier, Scale AI, Remote

Mar 2024 – Jun 2025

- Crafted and answered advanced CS and programming prompts to train generative models; evaluated model outputs for correctness across C++, Python, and other languages.
- Debugged data and model-interaction issues that improved labeling quality and model accuracy for downstream code generation tasks.
- Wrote reproducible test cases and contributed feedback to improve training pipelines and annotation guidelines.

Software Engineer (Contract), Mattson Technology, Fremont, CA

Jul 2023 – Dec 2023

- Developed C++ backend software for 20+ industrial hardware modules (e.g., Load Port, RFID), used in a silicon wafer processing machine.
- Collaborated with mechanical and electrical teams to troubleshoot and integrate hardware/software on physical machines.
- Authored detailed operating procedures for system setup and troubleshooting, improving team efficiency.
- Found and resolved two critical issues during peer code reviews, increasing test coverage to 80%.
- Developed in C++, Python, and XML within a Linux system on Azure DevOps, with Scrum (agile) methodology.

Student Software Engineer, UC Davis EcoCar EV, Davis, CA

Jan 2023 – Jun 2023

- Coded the radar detection and bounding box drawing algorithms in C++ as a member of the Connected and Automated Vehicle (CAV) sub-team, achieving 78% accuracy based on simulation data, and integrated with simulation platform for autonomous driving validation.
- Integrated and configured sensors for data collection and coordinated sensor-fusion efforts.
- Used dSPACE AURELION, ModelDesk, and RTmaps; coded in Python and C++.

PROJECTS

Network Congestion Control

Python,

- Built a custom TCP-like dynamic sliding-window congestion protocol and tested it in simulated high-traffic scenarios.
- Achieved lower per-packet delay and higher throughput than TCP Tahoe under unstable network conditions.

Water Level Prediction Model

Python, SQL

- Led a 5-person team to build a time-series ML pipeline predicting California reservoir levels using data from cdec.water.ca.gov. Implemented data ingestion, debugging of regression models, and a neural-network predictor; built SQL storage and an API for serving queries.

ARM 16-bit CPU (Academic)

Logisim

- Designed and implemented a 16-bit ARM-compatible CPU (1MB memory) from logic-gate modules. Implemented instruction fetch, ALU, controller, register file, and data memory and validated correct instruction execution across test programs.

Various Smaller Projects: Pac-Man, Tetris, Monopoly (C++); Chess, Checker, Wordle solver, Twitter Scraper (Java/Python); Screeps AI (JavaScript); Discord bot (Python); Basic functional language (Go); Encoder/Decoder (C++);