Steven Chen

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EDUCATION

- **University of California, Davis** — Davis, CA
  Bachelor of Computer Science — *Sep 2021 - June 2023*
  Courses taken: Operating Systems, Artificial Intelligence, Machine Learning, Computer Architecture, Algorithm Design and Analysis, Probability and Statistics, Computer Network, Web Design and Programming, Programming Languages, Software Engineering, Senior Project, Computer Security, Game Design

SKILLS SUMMARY

- **Proficient Operating Systems:** Windows, Linux
- **Proficient Languages** C++, Python, Go, SQL, x86 assembly, HTML, CSS, JavaScript, Latex, Verilog, Lisp, Prolog, XML
- **Familiar Libraries/Extension:** OpenCV, React, Express, Numpy, Pandas, Seaborn, Keras, sklearn, gRPC, RocksDB, etc
- **Experienced Development Tools:** Azure, Git, Matlab, Visual Studio Code, Microsoft Visual Studio 2019, Wire Shark, Unity, Android Studio, Docker, DSpace, Aurelion, RTMaps, ModelDesk, BitBucket, PowerShell, Zoom, Slack

EXPERIENCE

Mattson Technology — Fremont, CA
Software Engineer (Contractor) (Full time) — *July 2023 - December 2023*

- Worked on the Escala Project, with focusing on the EFEM (Equipment Front End Module) of a silicon wafer processing machine. Wrote backend code for devices such as the Loadport, FFU, ECATs, RFID reader, and Kawasaki Robot, etc. Added additional features for existing devices. Confirmed and tested the code in simulation and on the physical tool.

- Collaborated with mechanical, electrical, and process teams to troubleshoot, fix, and install components/devices, along with their respective software, on the physical machine.

- Wrote detailed, step-by-step procedures/documentation for the installation and troubleshooting of components/software, including the RFID reader, Moxa, FFU, core dump files, Database update Utility, etc.

- Participated in collaborative peer reviews with team members to collectively optimize and troubleshoot issues in each other's code. Additionally, assisted remote team members in testing their code on the physical machine.

- Developed primarily in C++ within a Linux environment on Azure DevOps, with Scrum methodology.

Information and Educational Technology (UC Davis) — Davis, CA
Student IT Support and Maintenance Technician (Part Time) — *Oct 2021 - May 2023*

- Helped with computer-related issues on campus, including installing, troubleshooting, and fixing software and internet issue.

- Performed routine maintenance and repairs around the campus, such as fixing servers, displays, and projectors.

PROJECTS

- **UCD EcoCar EV year one Development** (Jan 2023 - June 2023)
  - Working in a sub-team of the Connected and Automated Vehicle(CAV) sub-team, on the perceptions system.
  - Primarily responsible of setting up simulation, configure sensor, connect and collect sensor data. Also code the radar detection and bounding box drawing algorithm, and evaluating sensor-fusion result.
  - Made use of dSPACE AURELION, ModelDesk, and RTmaps. Code in Python and C++

- **Network Congestion Control (Academic)** A TCP Dynamic sliding window Network Congestion Control (May, 2022)
  - Worked in a group of two, worked semi-independently with my group mate, and ran our NCC against each other, then made improvements upon the one with better performance.
  - Achieved performance was better than TCP Tahoe under the simulated unstable high traffic scenario.
  - Created using Python, used the socket library.

- **Water Level Prediction Model (Academic)** A ML model that predict water level of California reservoirs. (Dec, 2022)
  - Worked as project lead in a team of five. organized and brainstormed the project idea, and led it's development.
  - Pulled data from cdec.water.ca.gov, bug fixed the regression model and graphs, created a Neural network model.

- **Various Smaller Projects** Many project I coded on my own or with a group (2018 - Current)
  - Checker(Java); Chess(Java); Monopoly(C++); Club website (HTML, CSS); Pac-Man(C++); Tetris(C++); evolution of traits(C++); Various small Game(Unity, C++); Discord chat bot(Python); Dining Common android app(Java); Screep AI(JavaScript); Checker AI(Python); basic functional Programming Language(Go); Twitter news Bot(Python);

CERTIFICATIONS AND AWARDS

- Won third place in 2021 OhloneHack Hackathon, on the topic of Cyber Security. With a custom encode/decoder in C++.