# Perry Chien

Seattle, WA | (510) 994-9074 | peichi1@uw.edu | linkedin.com/in/peichi1 | perryz0.github.io/

## Education

**University of Washington** Seattle, WA

*B.S. Computer Science, GPA: 3.8* *Sep 2022 – Jun 2026*

**Coursework**: Data Structures, Systems Programming, Distributed Systems, Operating Systems, Machine Learning, Machine Learning Systems, Computer Security, Data Management, Probability Theory

## Experience

**Tesla** Nov 2025 – Mar 2026 (expected)

*Incoming Software Engineer Intern* *Fremont, CA*

- Developing scalable Kubernetes infrastructure and AI agents (Go, LangChain) for a next-gen communications platform supporting high-availability messaging and media across Tesla's vehicle, energy, and insurance products.

**Meta** June 2025 – Sep 2025

*Production Engineer Intern (MLH Fellow)* *Remote*

- Built and deployed an open-source personal site on DigitalOcean with AstroJS and Docker Compose, maintaining 99% uptime and ensuring automated, version-controlled rollouts via GitHub Actions.
- Engineered a containerized deployment pipeline (Docker, NGINX, CI/CD, systemd) as part of Meta's SRE curriculum, reducing manual update overhead by 50%.
- Instrumented server monitoring with Prometheus and Grafana, improving observability and reducing debugging time during deployment failures.

**Delta Electronics** May 2025 – Aug 2025

*Software Engineer Intern* *Bothell, WA*

- Engineered a modular firmware boilerplate to unify embedded engineering teams under Microsoft Azure's firmware security compliance framework, reducing monthly client complaint tickets by 70%.
- Prototyped a Python API library for Tektronix oscilloscopes to automate PSU hardware testing and compliance workflows, enabling faster QA and cooling system validation.
- Liaised between Microsoft Azure's hardware leads and Delta firmware teams to support PSU firmware integration, network configuration, and system upgrades to Schneider Electric's PME platform for datacenter deployment.

**UW Computer Systems Lab** May 2025 – Present

*Machine Learning Systems Researcher* *Seattle, WA*

- Researching programmable schedulers and domain-specific languages (DSLs) to support user-defined policies in ML data processing frameworks (Kubernetes, Spark, Ray), enabling hybrid centralized and distributed execution.
- Developed a modular simulation framework in Python with pipelined tmux execution and automated metric (*e.g.,* latency, throughput) analysis, streamlining evaluation of scheduler performance under varying load conditions.

## Projects

**Drone Controller, Husky Robotics** | *Python, Go, WebSockets, gRPC* Jan 2023 – Present

- Led seven ECE/CS developers on edge-computing infrastructure for real-time drone telemetry and control.
- Built a gRPC and WebSocket server in Python to decouple indefinite telemetry from event-driven modules.
- Developed a Go-based ground client for reliable gRPC control and persistent high-frequency WebSocket telemetry, integrating MAVLink for communication between Raspberry Pi and flight controller.

**SproutSynch** | *Python, Apache Airflow, Firebase, Next.js* Oct. 2024 – May 2025

- Worked with six developers on a plant-care MVP app, and built a dynamic DAG factory using Python, Apache Airflow, and Redis to orchestrate and automate Raspberry Pi plant-watering schedules and sync routines.

**Distributed KV Store** | *Java, Lombok, Distributed Protocols* Jan. 2025 – Mar. 2025

- Designed and built a linearizable, sharded key-value store with multi-key transactions & dynamic load balancing.
- Implemented the Multi-Paxos and Two-Phase Commit protocols for fault-tolerant state replication, ensuring both system safety and liveness across sharded replica groups in a distributed environment.

## Technical Skills

**Languages**: Python, C, Java, Go, C++, TypeScript, SQL, x86, Verilog

**Tools**: Kubernetes, Spark, Git, Github, Linux, Docker, AWS, GCP, Node, GDB, CMake, Flask, Airflow, Bash, CI/CD