Perry Chien

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Education

University of Washington Seattle, WA
B.S. Computer Science, GPA: 3.8 *Sep. 2022 – Jun. 2026*
Coursework: Data Structures & Parallelism, Distributed Systems, Operating Systems, Machine Learning, Datacenter Systems, Computer Security, Data Management, Probability Theory, Advanced Linear Algebra

Experience

Meta (via Major League Hacking) June 2025 – Sep 2025
Production Engineering Fellow (2% acceptance rate) *Remote*
- Designed and deployed a personal portfolio site on a DigitalOcean droplet with Docker, maintaining 99%+ uptime and automating version-controlled updates via GitHub Actions and CI/CD pipelines.
- Containerized a Flask app with MySQL and NGINX, integrating CI/CD and tmux for automated deployments that improved update cycle time by 50% and reduced manual overhead.
- Completed a hands-on Meta SRE curriculum on Linux, Bash, Docker, system design, and monitoring/response.

Delta Electronics May 2025 – Aug 2025
Software Engineering Intern *Bothell, WA*
- Building modular firmware boilerplate to unify diverse embedded engineering teams under Microsoft Azure's firmware security compliance framework, reducing monthly client complaint tickets by 70%.
- Liaising 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
Undergraduate 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.

Taiwan Semiconductor Manufacturing June 2024 – Sep 2024
Engineering Intern *Camas, WA*
- Developed a defect detection tool for ion deposition chambers using Python, OpenCV and Qt, automating silicon defect analysis and reducing engineers' troubleshooting time by 2 hours per week.
- Normalized time-series data for aging semiconductor equipment in OracleDB, improving query efficiency, then built RESTful pipelines to migrate local tracking to a scalable CRUD database.

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 in Python and Apache Airflow to orchestrate asynchronous Raspberry Pi tasks and automate plant-watering schedules and sync routines.
- Prototyped a faster pipeline via Redis, Kafka, WebSockets to unify hardware into a single stateful backend.

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, MySQL, x86, Verilog
Tools: Git, Linux, Docker, GCP, Node, GDB, CMake, OpenCV, React, Flask, JUnit, LaTeX