

Felix Lin

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EDUCATION

- **Carnegie Mellon University** Pittsburgh, PA
• *Bachelor of Science in Artificial Intelligence; GPA: 3.36* *Expected May 2028*

EXPERIENCE

- **COCO** Remote
Software Engineer Intern *May 2026 – Present*
 - **Zylos Platform:** Contributor to Zylos, an open-source agent-infrastructure platform giving AI agents persistent memory, multi-channel communication, and autonomous operation; supports Claude Code and OpenAI Codex as interchangeable runtimes.
 - **Communication System:** Built and shipped five production channel integrations — Discord, Zalo, Microsoft Teams, WhatsApp Business, and LINE — routing through a unified message gateway backed by SQLite for cross-channel audit and context retrieval.
 - **Agent Architecture:** Developed the component system powering the Zylos ecosystem — a modular plugin architecture with hot-reload configuration, lifecycle hooks, and a public registry, enabling community-contributed integrations across 10+ platform channels.
 - **Infrastructure & Reliability:** Deployed production agent services on GCP with automated health monitoring, crash recovery, heartbeat liveness probes, and context-aware session rotation, maintaining continuous uptime for always-on AI agents.
 - **Memory Evaluation:** Built a dockerized evaluation harness for agent memory (LongMemEval) — a reproducible distill/answer/judge pipeline — and ran a 125-question benchmark establishing the platform's retention baseline (75%).
- Machine Learning Intern* *Aug 2025 – Dec 2025*
 - **Agent Evaluation:** Designed and implemented judge rubrics with failure-mode checks for 3 production LLM agents, reducing QA iteration time on prompt changes across resume parsing, tutoring, and mock interview systems.
 - **Benchmarking:** Evaluated 3 agent testing frameworks (Pydantic Evals, OpenAI Evals, DeepEval), producing a comparative analysis with recommended usage patterns adopted by the engineering team.
- **Chapman University, Gait Rehabilitation and Research Lab** Orange, CA
Mobile Development Intern *Sep 2021 – Dec 2021*
 - **Flutter App:** Developed a cross-platform mobile application in Flutter (Dart) for stroke rehabilitation, featuring rep tracking, progress visualization charts, and therapy adherence monitoring.

PROJECTS

- **Network Proxy:** Implemented a multithreaded HTTP proxy in C with concurrent POST request handling and a linked-list-based caching layer (up to 1MB), reducing redundant network calls and improving service latency under load.
- **Memory Allocator:** Engineered a dynamic memory allocator in C using explicit segregated free lists with best-fit search, mini-blocks for small allocations, and adjacent block coalescing, achieving 11,031 KOPs throughput and 74.1% memory utilization.
- **Unix Shell:** Implemented a Unix shell in C with job control, process groups, I/O redirection, and race-free SIGCHLD/SIGINT/SIGTSTP signal handling with sigsuspend-based foreground waiting.
- **Water Leak Detection:** Designed a latch-on water meter accessory using Cloud Vision API for meter reading, and developed an ARIMA-based leak-detection model with Pmdarima that identified anomalous usage patterns, reducing daily water waste by ~10%. Published at MLNLP '22.

AWARD AND PUBLICATION

- **USA Computing Olympiad:** Silver Division, 2020.
- **Publication:** "SmartMeter: An Automatic Water Metering System using Computer Vision and ARIMA-Based Machine Learning", MLNLP '22.

SKILLS

- **Languages:** Python, C, Java, JavaScript, SQL, Shell **Tools:** Git, Docker, Linux, CI/CD, REST APIs, SQLite
- **Frameworks:** Node.js, PyTorch, NumPy, TensorFlow, scikit-learn, JAX