Yu Lo

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EDUCATION

University of Washington – Seattle, MS, Electrical and Computer Engineering 09/2025 – 06/2027

- Coursework: Introduction to Database Systems, Engineering Entrepreneurial Capstone, Software Engineering for Embedded Applications (C, C++), Machine Learning Operations, Data Structures and Algorithms for ECE Applications (Java)

Northeastern University – Seattle, MS, Computer Science, GPA: 4.0 / 4.0 01/2025 – 08/2025

- Completed MSCS coursework with 4.0 GPA; transferred to University of Washington MS ECE program

SKILLS

- **Programming:** Python, Java, JavaScript, Typescript, C, C++, Go
- **Frameworks & Libraries:** HTML, CSS, Tailwind CSS, React.js, Flask, RESTful APIs, API Design
- **DevOps & Cloud:** AWS (EC2, S3, Lambda), Cloudflare Workers, Edge Deployment, CI/CD pipelines, Unix/Linux Environments
- **Databases & Tools:** SQL, Pandas, OpenPyXL, Algorithms & Data Structures, GitHub, Jira, ETL Pipelines, Data Processing
- **AI/ML:** Natural Language Processing, Prompt Engineering, LLM Integration, Cloudflare Workers AI (Llama 3.3), Google Gemini API

PROFESSIONAL EXPERIENCE

PAREXEL (Global clinical research and data services company, with 21,000+ employees across 50+ countries) 12/2018 – 11/2024

Senior Statistical Programmer – Backend & Data Infrastructure (Software-focused)

- Engineered automated data-processing frameworks using Python (with R/SAS) to process large-scale clinical datasets, cutting execution time from 24h to 3h (~85% faster) and improving global data delivery speed
- Developed an MD5-based code-duplication detection framework to identify redundant scripts across parallel data-processing pipelines, reducing manual verification effort by 38% and improving reproducibility across studies
- Built and integrated error-handling, logging, and monitoring mechanisms in Unix/Linux environments, reducing manual verification time by 43%; introduced Git version control, peer code reviews, and systematic debugging to improve reliability and maintainability
- Refactored legacy SQL macros into modular, configuration-driven transformation modules powered by XML metadata, enabling automated spec-driven data processing and reducing redundant code by 58%
- Collaborated with PMs, QA, and compliance teams to engineer secure, audit-ready data infrastructure; owned quality and compliance processes that passed 5+ FDA/EMA inspections with zero findings, reinforcing global trust and long-term system reliability
- Led a 6-member programming team through structured reviews and release cycles, delivering scalable data infrastructure that powered regulatory submissions for Asia's first FDA-approved nasopharyngeal carcinoma treatment across 30+ countries

SELECTIVE PROJECTS

AI Baseball Analytics Agent *(Full-stack Developer)* (Live Site / GitHub) 11/2025

Tech: TypeScript, Cloudflare Workers, Wrangler, D1 (SQLite), Llama 3.3 Model Binding, Git

- Built and deployed an AI-driven baseball analytics agent on Cloudflare Workers, combining Workers AI (Llama 3.3) with a D1 SQLite database to support natural-language queries over 56,000+ pitching records
- Engineered a multi-stage LLM inference pipeline (natural language → SQL generation → execution → response formatting), applying structured system prompt design with query safety mechanisms and fallback logic for robust error handling
- Created a lightweight and responsive web interface with auto-scroll and structured results, along with documentation to support debugging and future maintenance

Xcelerate: Excel Automation AI Copilot *(Full-stack Developer)* (GitHub) 08/2025

Tech: Python, JavaScript, HTML/CSS, Flask, Tailwind CSS, Pandas, Google Gemini API, Chrome Extension Development, Git

- Developed a production-ready Excel automation platform that allowed non-technical users to perform complex spreadsheet operations via natural language, delivering automated data transformations through AI
- Architected a fullstack architecture with Flask RESTful API backend and responsive JavaScript frontend, incorporating robust error handling, automated testing, and flexible Excel processing (.xlsx/.xls) while preserving file integrity and metadata
- Automated Excel workflows using natural language and Google Gemini API integration, reducing manual effort by 67% and improving productivity through Python-based transformation logic

Pinception: Chrome Extension for ChatGPT *(Full-stack Extension Developer)* (Live Site / GitHub) 03/2025

Tech: JavaScript/TypeScript, Google Chrome Extension APIs, Chrome Storage API, CSS, Git

- Created a Google Chrome extension for ChatGPT users to save, search, and reuse conversation prompts, reducing repetitive typing and improving workflow efficiency through local-first storage and fast access UI
- Launched on the Google Chrome Web Store with a 5/5 user rating, built with JavaScript and Chrome Extension APIs, delivering a privacy-first architecture and long-term maintainability for power users