

Alexander Lin

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SKILLS

Languages: Python, Java, Bash, C++, TypeScript, JavaScript, SQL, Swift, HTML/CSS

Frameworks & Libraries: LangChain, FastAPI, Next.js, SvelteKit, Tailwind CSS, Cypress, PyAutoGUI

Cloud & DevOps: Docker, Terraform, GitHub Actions, Google Cloud Run, GCP, Azure, OCI, Vercel

Databases & Enterprise Platforms: Pinecone, Oracle APEX, Oracle EBS, Microsoft Graph API, SharePoint Admin

Systems & Tools: Linux Administration, WSL, Git/GitHub, Microsoft 365 Copilot

EDUCATION

California State Polytechnic University

Pomona, California

Bachelor of Science – Computer Science / GPA 3.53

Graduation: December 2025

EXPERIENCE

California Institute of Technology – Information Management Systems & Services (IMSS)

Pasadena, CA

Software Engineering Intern

June 2025 – August 2025

- Automated quarterly Java-based validation of Oracle E-Business Suite (EBS), significantly reducing manual QA effort each quarter through automation.
- Built Microsoft 365 Copilot AI agents using prompt engineering to automate timekeeping analysis, benefits analysis, and status report generation.
- Automated faculty access management workflows by pulling user data from SharePoint via Microsoft Graph and generating standardized access lists (CSV/UIDs) for seamless Oracle integration and faster authentication approvals.

June 2024 – August 2024

- Developed Cypress automation for load testing high-traffic class registration systems, ensuring cross-browser stability.
- Debugged and resolved failing test cases, boosting test accuracy and compatibility across multiple platforms.
- Authored SharePoint-based training materials on Cypress automation (guides, videos).

API Services

Full-Stack Developer (Independent Contractor)

2025 – Present

- Developed and deployed an AI-powered knowledge search system leveraging machine learning to make 300+ internal documents instantly accessible to staff, with automated updates, reliable cloud hosting, and always-on availability.

Administrative Assistant (Independent Contractor)

2021 – 2025

- Provided day-to-day IT support and systems management, including software rollouts, security updates, hardware setups, and SharePoint integration to keep staff productive and reduce downtime.

PROJECT EXPERIENCE

NASA CubeSTEP Flight Software

Subteam Lead/NASA M-STAR Student Researcher

2023-2025

- Developed flight software in C++ with NASA's F' framework, tested on spacecraft hardware for mission-critical reliability. Collaborated directly with NASA/JPL engineers to integrate and test software with spacecraft hardware systems.
- Collaborated in Agile-based workflows with NASA/JPL engineers to integrate CubeSat subsystems.
- Planned RTOS implementation to support real-time spacecraft operations.

alexanderlin.com (portfolio website)

- Built and launched a production portfolio site showcasing projects and technical work
- Simplified deployment and hosting to reduce operational complexity and failure points while maintaining reliability
- Improved performance and user experience through modern frontend practices and targeted optimizations