

David Liu

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EDUCATION

University of Western Ontario

London, ON

B.Eng. Software Engineering, Co-op

Sep 2022 – Jun 2026

- **Awards:** ESA International CanSat Competition Semi-Finalist (1st in Canada, Team Canada); 2nd Place (\$5,000), TELUS AI at the Edge of Innovation; Top 5 Finalist, UofT Hacks

SKILLS

Technical: Python, JavaScript/TypeScript, SQL, React, Next.js, Node.js, PostgreSQL, Supabase, GCP, Docker, GitHub Actions, Git

Product: Roadmapping, sprint planning, stakeholder management, client & user feedback surveys, competitive analysis, Figma, Jira

Data & AI: RAG systems, OpenAI API, LangChain, pgvector, agentic AI pipelines, embedding pipelines

EXPERIENCE

Tethos Association (TSI)

London, ON

Founder & President

May 2024 – Present

- Built Western's largest tech organization from scratch into a federally incorporated nonprofit with 80+ members, 2 university chapters (Western, UBC), 3,000+ community reach, and \$300K+ in delivered value to clients including the International Rescue Committee, World Vision, and London Children's Museum
- Scoped and managed 20+ client consulting engagements with nonprofits, running user and client feedback surveys to inform requirements: SettleIn (mobile app for IRC serving refugees), an agentic AI discovery pipeline for World Vision, and an interactive space glove exhibit now installed at LCM (225,000+ annual visitors)
- Directed GENESIS 2026 end-to-end (vendor logistics, sponsor relations, marketing), running the largest student-led tech demo day in London, Ontario; led brand and creative direction across identity, merch, and social content
- Identified internal tooling gap and solo-built TSI's platform (400+ users) with a hiring pipeline, applicant database, RAG assistant, email automation, and a gamified 3D dashboard to drive member engagement

J.D. Power

London, ON

Software Engineering Intern

May 2025 – Present

- Contributed across the full software development lifecycle for Stellantis' Build & Price platform, designing, implementing, and verifying backend and data-pipeline fixes that shipped accurate MY26 Jeep configurations to millions of end users
- Performed code reviews across a large automotive codebase, proactively identifying defects and recommending improvements to maintain production stability
- Collaborated cross-functionally with QA, PM, and engineering stakeholders to validate designs, create work estimates, and coordinate day-to-day execution of development tasks
- Researched and authored an internal report on integrating Git Pilot for automated vulnerability detection, leveraging AI tooling to improve code quality and development efficiency; presented recommendations to engineering leadership

Modern Engineering

Delta, BC

Software Engineering Intern

May 2024 – Sep 2024

- Scoped and built a full-stack tool management application (React, Node.js, PostgreSQL) after conducting workflow analysis with floor operators, improving assembly efficiency by 25%
- Identified manual reporting as a bottleneck and automated the pipeline in Python, reducing generation time from 2 hours to 5 minutes

PROJECTS

TSI Platform | *Next.js 16, React Three Fiber, FastAPI, Supabase, pgvector, OpenAI, Vercel*

2025 – Present

- Solo-designed and built a full-stack platform serving 400+ users, defining user personas and interaction flows for a hiring pipeline (auto-scoring, applicant flagging, Calendly-style booking, offer delivery), bounty board, shop with virtual currency, and event RSVP system
- Designed a gamified 3D dashboard where members create avatars, discover RPG classes via personality quiz, explore a campus world to access real tools (bounties, shop, job board), earn currency through quests, and compete on a ranked leaderboard with 6-tier progression
- Shipped a standalone RAG microservice (FastAPI, pgvector, OpenAI) indexing Google Drive and Notion for cited knowledge retrieval; built CI/CD pipeline with GitHub Actions and Docker for game server deployment

EXTRACURRICULARS

Tsinghua University, AI Research Assistant | Wav2Lip deepfake research, published study

May 2023 – Aug 2023

Western Founders Network, VP of Education | Ontario's largest hackathon edu event, 100+ attendees

Sep 2023 – Sep 2025

Western Engineering Satellite Team, CDH Team Lead | onboard computer in C, Docker

Sep 2022 – Aug 2023

Ignition Hacks, Judge

Aug 2025

Classical Guitar, National Competitor | performed at Carnegie Hall, 2nd Place NW Guitar Competition

Nov 2014 – Present