David Lam

dlam1@cpp.edu | (626) 251-0999 | West Covina, CA | [Linkedin](#) | [GitHub](#)

EDUCATION

California State Polytechnic University, Pomona   Pomona, CA
Bachelor of Science in Computer Science, Minor in Data Science   *Aug. 2023 – Dec 2025*

PROJECTS

TripMate AI | *Next.js, Tailwind CSS, PostgreSQL, Neon, n8n, Vercel*   Jan 2025 – May 2025

- Developed an AI-powered travel planning web app from scratch, enabling users to generate dynamic multi-day itineraries using OpenAI and real-time weather APIs, boosting trip customization accuracy by **80%**.
- Deployed frontend on Vercel and backend on Render, integrating cloud database Neon and streamlining user trip data persistence with **99.9%** uptime.
- Automated trip schedule generation and PDF delivery pipeline using n8n workflows, reducing manual itinerary generation time by **90%**.
- Implemented AI recommendation logic that analyzes past travel data to suggest new destinations, increasing user engagement by **3** times over baseline trip suggestion logic.
- Collaborated across frontend and backend interfaces, creating over **8+** modular API endpoints with FastAPI and Next.js to support real-time AI agent responses.
- Troubleshot and resolved API errors and AI tool call failures across OpenAI and Gemini models, achieving **98%** functionality for trip planning tasks

Library Subsystem | *Next.js, Tailwind CSS, Prisma, PostgreSQL, Neon, Vercel*   Aug 2024 – Dec 2024

- Designed and implemented a full-stack digital library system for managing books, user accounts, orders, and payments, reducing manual tracking workload by **85%** through automation.
- Built secure user authentication and role-based access (Student/Staff) using custom API routes and database-linked user models, enabling **100%** access control across both user types.
- Structured database with Prisma ORM, modeling **6+** entities with relationships to track inventory and borrowing history in real time
- Collaborated in a 6-member team, leading backend integration and debugging over **20+** API calls, cutting development delays by **30%**.
- Developed a responsive UI using Shadcn UI + Tailwind CSS, improving usability across devices and achieving a **95%+** satisfaction rate from peer feedback in usability testing.

LEADERSHIP ENGAGEMENT

Community Committee Member   Fall 2024 – Spring 2025
Cal Poly Pomona   *Pomona, CA*

- Assisted the Community team in outlining and building Community-related workshops for club members to convey helpful information about career and educational plans.
- Promoted the club through upcoming technical workshops and projects in store.
- Discussed plans for social events to bring club members together and build networking.
- Attended peer discussions and collected feedback to improve future workshops.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL (Postgres), JavaScript, TypeScript, HTML/CSS
Frameworks:Node.js, NextJS, Flask, FastAPI, n8n
Developer Tools: Git, GitHub, VS Code
Libraries: React, Pandas, NumPy, Matplotlib

CERTIFICATIONS

CodePath - Intermediate Technical Interview Prep   Summer 2024