Timothy N. Lee

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EDUCATION

California Polytechnic State University, Pomona | Pomona, CA   Expected May 2026
Bachelor of Science, Computer Science   GPA: 3.74
- **Coursework**: Data Structures & Algorithms, Software Engineering, Object-Oriented Programming, Systems Programming, Computer Architecture, Discrete Mathematics, Numerical Methods, Computer Networks

PROJECTS

Lockheed Martin UAV Drone Research Project – Software Engineer | *QML, Python, C++, SQL*
California State Polytechnic University, Pomona
- Built UAV ground control interface enabling a single-operator to manage 2 autonomous drones, improving mission coordination efficiency
- Architected scalable **Qt**-based system enabling cross-platform deployment and cutting feature integration time by **20%**
- Integrated drone software GUI with embedded hardware via Xbee, improving real-time data synchronization by **30%**
- Implemented advanced **error-handling algorithms**, reducing in-flight operational failures, increasing system stability in dynamic environments

Talk Talk Goose | *React, Express.js, MongoDB, Node.js, Gemini API, Docker, Railway*
- Deployed **full-stack AI chat application** leveraging MERN stack and Gemini API, supporting real-time messaging
- Engineered optimized MongoDB schemas that cut payload sizes by **70%** and lowered query latency by **60%**, achieving **<35ms** median response times
- Increased AI response streaming efficiency by **38%** using Gemini pipeline optimizations and React UI batching, minimizing re-renders by **40%**
- Implemented **React Query** and caching strategies to reduce server load and enhance UX for concurrent sessions

BroncoBites | *TypeScript/JavaScript, Python, HTML/CSS, MongoDB, Clerk, AWS*
broncobites.com
- Developed full-stack platform analyzing **500+** menu items across **8** campus restaurants to automate student meal planning and fitness goals
- Built algorithmic meal-generation system that balanced nutrition per user goals, cutting manual planning time by **80%**
- Designed real-time nutrition dashboard using dynamic React components and MongoDB aggregations, boosting meal-tracking engagement by **18%**
- Deployed production-grade app on **AWS EC2** with CI/CD via GitHub Actions, serving **100+ active student users**

Epic Pomona Website | *Next.js, TypeScript, Figma, Netlify*
epicpomona.com
- Collaborated with a team of 5 to launch a scalable Next.js platform for a campus ministry serving **200+ students**
- Implemented server-side rendering and performance optimizations that reduced page load times by **40%**
- Designed responsive UI/UX in Figma, improving user engagement and retention by **25%**
- Deployed CI/CD enabled production builds to Netlify, maintaining **99% uptime**

SKILLS

Languages: JavaScript/TypeScript, HTML/CSS, Java, Python, C++, QML
Frameworks & Libraries: React, Next.js, Node.js, Express.js, Vue.js, Qt, Tailwind CSS
Technologies & Tools: Git, MongoDB, REST APIs, Google Cloud, Qt Creator, Docker, AWS, Figma