

Bian Lee

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EDUCATION

University of California, Davis

Davis, CA

*Bachelor of Science in **Computer Science**, Bachelor of Arts in **Economics***

Sep 2022 – Jun 2026

- Object-Oriented Programming (C++), Data Structures & Algorithms, Computer Architecture, Programming Languages, Algorithm Design & Analysis, Machine-Dependent Programming (x86), Computer Networks, Linux, Databases, Human-Computer Interaction, Computational Social Science, Transportation Systems, Discrete/Abstract Math

EXPERIENCE

Amazon

Jan 2025 – Apr 2025

Incoming Software Development Engineer Intern

Bellevue, WA

Fidelity Investments

Jun 2024 – Aug 2024

Software Engineer Intern

Merrimack, NH

- Implemented data parsing and calculation logic for account balances in **Spring Boot** with **90% JUnit test coverage** and **refactored codebase to reduce Sonarlint complexity score** to below threshold (49 to 15) to improve readability
- Configured performance testing suites for 2 brokerage service APIs to measure TPS, response time, and resource usage across 10+ AWS EKS pods under multi-threaded scenarios, with Datadog dashboard & Akamai CloudTest integration
- Used **Jenkins** to deploy applications to prod environments and ran chaos testing with 5 types of attacks (cpu-stress, memory-stress, network latency, EC2-terminate, outage), analyzing usage metrics for EC2 allocation optimizations
- Wrote a Python script automating health check processes for **20+ endpoints**, sharing it across **8 teams** for daily use

California Air Resources Board

Jun 2023 – May 2024

Data Analyst Intern (Year-Round)

Sacramento, CA

- Led QA/QC on 6 datasets each containing over 10,000 rows of equipment project data and compiled comprehensive reports on aggregate air pollution emissions for the annual CAP reporting cycle, under the Carl Moyer Memorial program
- Implemented a data pipeline that streamlines data transfers from the database to the front-end interface using **automated SQL queries** based on triggers, **reducing manual querying and entry by ~40%**
- Conducted **QA software testing** on over 10 features of the CARL database management system following AGILE

AggieWorks (UC Davis Development Club)

Sept 2022 – Jun 2023

Software Engineer

Davis, CA

- Worked on clubby.org (campus club finder app), implementing front-end UI components (modal, cards, navbar, search) with conditional rendering using Svelte, and REST API development using GORM (Golang ORM) and PostgreSQL

PROJECTS

HackMIT Admission Puzzle Solver | GitHub | C++

July 2024

- Wrote a C++ script that uses Trie data structure, DFS (depth-first search) and backtracking algorithms to maximize points on the hexhunt word puzzle, winning a **guaranteed admission to HackMIT (20th place out of ~500 solvers)**

Yoga Form Detection/Correction Model with Real-Time Video | GitHub | TensorFlow, Python

Apr 2024

- Used TensorFlow's PoseNet model to build a live webcam feed that tracks body points in relative coordinates, comparing them against a ML model trained on images of correct yoga forms to give generative feedback

Mentor/Mentee Real-Time Communication App | GitHub | Next.js, PostgreSQL

Feb 2024

- Developed a full-stack social application designed to pair mentees with mentors (students with alumni), integrating authentication, real-time 1:1 messaging, profile creation/editing, searching, and filtering capabilities

Decentralized Exchange and ERC-20 Token/Tokenomics | GitHub | Solidity, Web3.js

Dec 2022

- Deployed Solidity smart contracts on mainnet for ERC-20 token and a decentralized exchange (tradable using Metamask wallet), implementing **constant product market formula in Automated Market Making (AMM)** systems

TECHNICAL SKILLS

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

Frameworks/Tools: Git, Spring Boot, JUnit, Jenkins, React.js, Selenium, PostgreSQL, Insomnia, Docker, Linux, Excel

Concepts: Object-Oriented Programming (OOP), Software Development Life Cycle (SDLC), Agile Scrum Methodologies, Version Control, Unit Testing, Front-End, Back-End, Machine Learning, CI/CD, AWS Cloud, DevOps

AWARDS & CERTIFICATIONS

AWS Certified Cloud Practitioner

CompTIA IT Fundamentals+ Certification

UC Davis Little Bang! Pitch Competition Winner - Graduate School of Management (Awarded \$1k)

CyberPatriot National Semifinalist & Cyber Skyline Social Cyber Cup 3rd Place (Awarded \$2.5K)