

Brian Mai

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EDUCATION

California Polytechnic State University

Sep 2022 - Jun 2026

Bachelor of Science in Computer Science | **GPA: 3.92/4.00**

San Luis Obispo, CA

- Activities: Cal Poly Scholars | Treasurer of Cal Poly Linux User's Group (CPLUG)

EXPERIENCE

Federal Reserve Bank of San Francisco

Jun 2024 – Aug 2024

Software Engineer Intern

San Francisco, CA

- Played a key role in the migration to AWS GovCloud, developing a Lambda function to enforce least-privilege IAM policies, significantly enhancing security and compliance.
- Developed a scheduled Lambda function to analyze image rehydration for ECS services and EC2 instances
- Implemented a scheduled Lambda function integrated with EventBridge and AWS Config to automate the cleanup of unused resources in dev accounts, resulting in a reduction of cloud spend by 15%
- Deployed a machine learning model using SageMaker and API Gateway to predict new graduate employment rates
- Implemented scalable AWS infrastructure with Terraform, deployed processes through GitLab CI/CD pipelines

Cal Poly Computer Science Department

Jan 2024 - Present

Research Assistant & Team Lead

San Luis Obispo, CA

- Developing a using React application for the project: AI For Search & Rescue, which assists locating lost individuals using AI under the guidance of Professor Franz Kurfess.
- Architecture Firebase CRUD operations and integration with back-end machine learning models
- Converting designs from Figma into functional code and integrating Firebase for backend operations
- Lead a team of 4, managing pull requests and code reviews, and organized stand-ups in an Agile environment

E. & J. Gallo Winery

Jun 2023 – Aug 2023

Software Engineer Intern

Modesto, CA

- Developed a real-time centralized-logging platform and dashboard application using Next.js and Tailwind CSS displaying metadata, AWS EC2 and RDS, and ServiceNow, providing visibility of important metadata to the DevOps and DBA team and offshore team for better triaging of issues
- Enabled real-time AWS resource changes directly through the application by utilizing the AWS SDK for JavaScript, and AWS tags for resource management
- Led the deployment of Next.js applications to AWS Amplify by implementing a GitLab CI/CD pipeline.

Alan AI

Jun 2021 – Sep 2021

Software Engineer Intern

Remote

- Developed a React application integrating Alan AI's speech-to-text API, enabling voice interaction capabilities
- Implemented end-to-end, unit, and integration tests using Jest to ensure API functionality in web applications; utilized Postman test API request validation

PROJECTS

maihoney.com | *Next.js, TypeScript, Tailwind CSS, Stripe, Firebase, Vercel Analytics, Beekeeping*

- Built a full-stack e-commerce website with a custom content management system (CMS) selling organic, natural honey generating over \$1,000 revenue

CoderView | *Next.js, Typescript, Tailwind CSS, Clerk Auth, Firebase, Socket.io, Stream.io*

- Built a Zoom-like video conferencing platform, capable of hosting numerous participants via a single link, featuring authentication, meeting room recordings, and a live collaborative code editor utilizing sockets

Minecraft Server | *AWS Lambda, python boto3, Route53, EC2*

- Hosted a Minecraft server on AWS EC2 with a custom domain via Route53, and implemented an AWS Lambda function to reduce costs by 60% by automatically starting the EC2 instance on demand instead of running it 24/7

TECHNICAL SKILLS

Languages: Python, C, C++, Java, JavaScript, Typescript, HTML, CSS, MySQL, Racket, Terraform

Frameworks/ Libraries: React, NextJS, React Native, Tailwind CSS, Framer Motion, Pandas

Technologies: Git, GitLab, GitHub, AWS, Firebase, JSON, VS Code, Figma, MongoDB, Linux