

# ALLEN GU

✉ [allengu01@berkeley.edu](mailto:allengu01@berkeley.edu)

🔗 [allengu01.github.io](https://github.com/allengu01)

🌐 <https://github.com/allengu01>

in [linkedin.com/in/allengu01](https://www.linkedin.com/in/allengu01)

## Education

**BS University of California, Berkeley**, Electrical Engineering and Computer Science

Berkeley, California, USA

## Work Experience

**Workday**, Software Engineering Intern (Site Reliability)

2023 to present

- Created automation tooling for development workflow and continuous integration through a Go AWS Lambda bot.
- Led the migration of a repository with 100+ developers to integrate the bot by defining and coding requested features.
- Improved observability through Cloudwatch metric monitoring and Prometheus alarming, deployed on AWS EKS cluster.
- Built AWS, Prometheus, and Kubernetes architecture with infrastructure as code (IaC).

**UC Berkeley Department of EECS**, 20-hour Undergraduate Student Instructor (uGSI)

2023 to 2024

- Taught weekly discussion and lab sections, review sessions, and office hours for courses totaling 2500+ students.
- Created and edited course content to enhance learning (worksheets, video walkthroughs, and study guides).
- uGSI/Teaching Assistant for CS 61B (Java/Data Structures) and CS 70 (Discrete Math/Probability).

**Berkeley Codeology**, Director of Technology

2023 to 2024

- Coordinated 5 internal and 2 contract projects, providing tech exploration opportunities for 60 students.
- Guided and supported a 15-member committee in brainstorming project ideas, developing curriculums, and debugging.
- Mentored a team of 5 student developers in FlapPy, a self-created project utilizing Pygame, neural networks, and genetic algorithms to train artificial intelligence to play Flappy Bird.

**Avanti**, Software Developer

2023 to 2024

- Built a React Native mobile app from scratch that connects K-12 students with local tutors in various subjects.
- Led the implementation of various features including user authentication, organizing sessions, and real-time messaging.
- Utilized the Sharetribe API and React contexts to manage tutoring sessions and user data.

## Projects

**Spotify Collab | HTML, CSS, Javascript, React.js, Node.js, PostgreSQL, SocketIO**

- React.js website for collaborating on playlists, connecting users, and joining listening rooms using Spotify's API.
- Implemented synchronized listening and playback state with web sockets and a PostgreSQL database.
- Designed a frontend with React.js and created a Node.js backend for authenticating users and interacting with Spotify.

**ClassifAI | Swift, Python, Flask**

- iOS app that allows users to build training datasets and classify images from their phone camera or photo gallery.
- Designed the UI in Figma, built the iOS frontend with SwiftUI, and set up a Flask server to interact with AWS services.
- Integrated AWS S3 to store training image files and AWS SageMaker to train the image classification model.

## Skills

**Languages:** Python, Java, Golang, SQL, HTML/CSS, Javascript, Swift, C/C++, Bash, RISC-V Assembly

**Technologies:** Amazon Web Services (AWS), Terraform, Kubernetes, Docker, Prometheus, Git, React.js, React Native,

Node.js, Firebase, Flask, Numpy, Pandas, Matplotlib, PyTorch