

SIDDHARTH BALAJI

☎ (408) 610-0377 ✉ siddharthbalaji6@gmail.com 🌐 github.com/sbalaji09

Education

California Polytechnic State University, San Luis Obispo

Bachelor of Engineering in Computer Science

Expected Graduation: June 2029

San Luis Obispo, CA

Work Experience

Lifetime Activities

Activities Coach

July 2024 – November 2024; June 2025 – August 2025

Cupertino, CA

- Planned and led engaging group activities for children ages 6–15
- Conducted lessons with class sizes of 15+ students
- Ensured a safe and inclusive environment by supervising and responding to participant needs

Projects

Research Paper | *PDF* | *Source Code*

Machine Learning | **Federated Learning** | **Python**

- * Wrote a **research paper** under leadership of a **Stanford PHD Student**
- * Paper compared the efficiency in **training and testing** of two different image classifiers, AlexNet and a classic CNN, when used with **federated learning**
- * Achieved **93% accuracy** using AlexNet and **90% accuracy** with a traditional CNN model

Flood Evacuation Model | *Source Code*

Python

- * Worked with **two teammates** to build a model that **simulates floods** based on initial flood conditions and geographical data and also provides **optimal evacuation routes**
- * Achieved **95% accuracy** for the flood modeling

GreenThumb | *Source Code*

GoLang | **Typescript**

- * Developed a cross-platform mobile gardening app that gamifies plant care by enabling users to nurture home plants as virtual pets, increasing user engagement and plant health awareness
- * Implemented scalable backend services using **GoLang** with RESTful APIs hosted on **Render.com**, ensuring fast and reliable data handling
- * Integrated **Supabase** for real-time database management and storage, and designed the frontend using **React Native**, for clean UI/UX across iOS and Android devices
- * Set up product for deployment, but did not deploy due to deployment costs

LaunchLab | *Source Code*

Javascript

- * Built a webapp that generates startup ideas by taking in users preferred technologies and combines them to create a list of ideas
- * These ideas address relevant problems and additionally provide an inbuilt structure to create this project
- * Uses **NodeJS** and **ExpressJS** for the backend with React Native being used for the frontend
- * The app is hosted on **Vercel**

Log Analytics Project | *Source Code*

Go — TypeScript — Redis

- * Currently building a webapp system that accumulates logs from an application and make them quickly searchable through a front-facing user service
- * Backend built with **Go** for a REST API pfunctioning in log ingestion and querying
- * Frontend developed using **React** for a responsive and intuitive user interface
- * Employed **Redis Streams** for efficient real-time log streaming and buffering

Leadership

School Clubs

August 2021 - May 2025

- * Officers for **3 Homestead High School clubs**
- * Hosted meetings, planned events, and collaborated with members
- * For **Science National Honor Society**, helped **organize STEM Night**, the largest collection of STEM Clubs at Homestead High School

Technical Skills

Languages: Python, Java, SQL, HTML5, CSS, TypeScript, Go, JavaScript

Developer Tools: Git, Docker

Libraries, Frameworks, APIs: ReactJS, ReactNative, OpenAI API, NodeJS, ExpressJS