

Rayyan Hussain

rayyanhussain2024@gmail.com | (408) 807-2089 | <https://www.linkedin.com/in/rayyan-h/> | <https://github.com/rayyanh192>

EDUCATION

Santa Clara University, School of Engineering

Expected Graduation: June 2027

B.S. Computer Science and Engineering – Minors: Electrical Engineering, Math

WORK EXPERIENCE

Stealth Startup | Co-Founder/Lead Engineer | *San Francisco, CA*

Jun 2025 – Present

- Building a real-time AI **voice agent** to empower **developer productivity**.
- Implementing the agent with continuous listening, combining **speech + text** into LLM context, and streaming inference with early-start TTS and a **Redis** “sentence-starter” cache to enable natural turn-taking at **~50–100 ms perceived latency**.
- Created a workflow for users to write code and test execution, integrating responses for natural input handling.

Robotics Systems Lab @ SCU | Software Engineering Intern | *Santa Clara, CA*

Jun 2025 – Present

- Awarded **Kuehler Grant** to research **multirobot adaptive-navigation** with **cluster-controlled drones**.
- Implemented PID loops in ROS 2 that kept a two-drone **autonomous** formation within 0.1 m of desired paths.
- Designed a 24-camera OptiTrack testbed (0.2 mm accuracy) for real-time 3-D tracking of Crazyflie microdrones and adaptive-navigation experiments.
- Co-authored paper on 3-D cluster control; under review for the **2026 IEEE Aerospace Conference**.

SCU College of Engineering | Undergraduate Research Assistant | *Santa Clara, CA*

Jan 2025 – Present

- Conducting research at SCU’s Robotics Systems Laboratory on weather satellites, utilizing **SatDump** and **SDR++** to develop ML models for satellite data collection and real-time analysis under Dr. Michael Neumann and Dr. Christopher Kitts.

Yobi | Software Engineering Intern | *Los Gatos, CA*

Jun 2023 – Aug 2023

- Developed **AI agents** using **Python** that mimic real-time users to enhance team collaboration.
- Improved UX for **iOS** app.

PROJECTS

Sheltr | SCU Hack For Humanity 2025

Feb 2025

- Developed a disaster relief platform that helps displaced individuals find and reserve nearby verified shelters, ensuring safe and efficient access during emergencies.
- Built a full-stack web app using **FastAPI (Python)**, **AWS DynamoDB**, **AWS EC2** (hosted via **NginX**), and Google Maps APIs, enabling location-based shelter recommendations and real-time reservation management.
- Integrated **AWS Bedrock** and **Claude Haiku** to summarize shelter details and improve accessibility for users.
- **Won 4th place** at Hack For Humanity among 350+ participants, won Best Freshman Hack

Sentiment Enabler | Personal Project

Dec 2024

- Developed a web application that provides users with diverse perspectives on controversial topics by curating articles for opposing viewpoints, implemented a **T5-based machine learning model** to generate relevant and diverse keywords for each side of a topic.
- Optimized machine learning workflows using **Hugging Face Transformers**, **PyTorch**, and **SentencePiece** for tokenization.
- **Won 1st place** at the SCU ACM Winter Challenge

EmergenSee | AWS x Inrix Hack 2024

Nov 2024

- Developed a **real-time traffic management service** that alerts drivers to clear the leftmost lane when an ambulance is approaching, improving emergency response times by reducing traffic congestion ahead of the vehicle.
- Integrated **open-source APIs** (Google Maps, Distance Matrix API) to calculate distances between coordinate points to identify the closest traffic camera to client coordinates using vector calculations in **Python**.
- Incorporated real-time traffic congestion data by integrating INRIX API with **AWS Bedrock** and **Llama** for traffic image analysis to determine necessity for alerts to drivers, and hosted service on **Amazon EC2**.

LEADERSHIP

Association of Computing Machinery | Hackathon Coordinator | *Santa Clara, CA*

May 2025 – Present

- Leading end-to-end planning and execution of campus-wide hackathons at Santa Clara University, drawing 1,000+ participants.
- Partnering with engineers and managers from **AWS**, **Intel**, **ServiceNow**, and **Roblox** to plan and deliver company-hosted hackathons on campus, coordinating scope, staffing, and day-of operations.

SKILLS

Technical: Python, Java, C, C++, JS, Swift, TypeScript, HTML, React, SQL, Postman, Flask, AWS (DynamoDB, Bedrock, S3), ROS, Unix

Functional: Creative problem solving, logic, rhetoric, evidence-based decisions, user-centered design, effective communication