

SAAMIYAH ALI

Bay Area, CA | saamiyah.ali@gmail.com | +1-628-786-0521 | US Citizen | [linkedin.com/in/saamiyah-ali](https://www.linkedin.com/in/saamiyah-ali) | saamiyah.com

EDUCATION

University of California, Los Angeles (UCLA)

B.S., Computer Science and Engineering

Expected Grad. Dec 2027

Las Positas College

Computer Engineering

2023 - 2025

TECHNICAL SKILLS

Software Development Languages: Python, C/C++, JavaScript, Swift, VS Code, Eclipse

Hardware & Embedded Systems: Arduino, ESP32, Circuit Design, Soldering, CNC Manufacturing, Robotics

CAD & Fabrication: SolidWorks, Onshape, 3D Printing, Carbon Fiber Layup, Canva

Web Development: React, Vite, React Router, Three.js/WebGL, REST APIs, JWT Auth, CSS

Software & Cloud: Firebase (Cloud Functions, Auth), CI/CD, Terraform, Cisco NETCONF/YANG, Linux/Unix, Git, Xcode

AI / Emerging Tech: LLMs, Agentic AI (MCP, A2A), Claude Code, Gemini, Kiro, Quantum Computing

Relevant Coursework: Data Structures & Algorithms, Operating Systems, Assembly

Certifications: Claude Certified Architect - Foundations (in progress)

TECHNICAL PROJECTS & EXPERIENCE

Smart Adaptive Alarm Clock

Spring 2026 - Present

- Designed an ESP32 alarm clock computing safe wake-up time from transit, schedule, and buffer data
- Built embedded Arduino hardware using RGB LED, encoder, OLED display, buzzer circuit
- Developed a scalable cloud backend with Firebase integrated with the Google Maps Distance Matrix API, ready for iOS app

Autonomous Robot Car

Spring 2026

- Engineered and calibrated an autonomous lane-assist robotic car using an IR sensor array and a PD control loop to navigate a custom track, complete a 180° turnaround, and return to start
- Built a multi-sensor crossbar detection system and tuned Kp, Kd, base speed, and turn delay to complete the circuit in 13.9s, 27% faster than the maximum-credit benchmark of 19s

Frontend Developer, UCLA Syllabi Archive

Spring 2026

- Initialized the React 19 + Vite frontend for a 5-person team, configuring React Router DOM 7 and a centralized REST API service layer to communicate with the Flask backend
- Built Login/Register pages with regex-based UCLA email validation and JWT-driven auth state, plus a live-filtering Browse page with loading skeletons and error handling

Co-Lead, Bruin Escape, 3D Platformer Game

Winter 2026

- Modeled the game's 3D environment in Three.js/WebGL and engineered a hallway-recycling system for a seamless infinite-runner effect while keeping memory and frame rate stable
- Implemented bounding-box collision detection for coin pickups and obstacle hits, plus level objectives and progression logic, on a 3-person team

Mechanical Lead, Underwater Robotics

Fall 2025

- Led design and manufacturing for a 3-person team building a 4 degrees-of-freedom remotely operated vehicle, navigating obstacle courses
- 3D modeled and printed mounts for the thrusters, camera, and tether

Co-Lead, STEMinst Analyzer, EmpowHER Hackathon

Summer 2024

- Designed, architected, and programmed a C++ application leveraging custom data structures to analyze and visualize gender representation in academic publications

Structures Member, Supermileage Hydrogen Fuel Cell Vehicle

Fall 2025 - Fall 2026

- Manufactured an aerodynamic vehicle body using CNC-machined foam molds, carbon-fiber layups, and resin infusion, applying composite fabrication techniques

Fabrication & Design Member, ASME

2025 - 2026

- Mastered prototyping workflows and advanced 3D modeling using SolidWorks

LEADERSHIP & WORK EXPERIENCE

Contributor, Specific Specialists

Spring 2026 - Present

- Contributing to ongoing AI data platform projects by training TTS data models

MESA STEM Tutor, Las Positas College

2024 - 2025

- Provided weekly academic coaching in calculus, physics, and computer science for underprivileged engineering students

Digital Marketing Lead & Mentor, MHMA

2021 - 2025

- Unified brand identity across platforms, driving a 200% increase in engagement, and taught lesson plans on teamwork and growth