

Ali Saeed

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EDUCATION

University of California, Los Angeles

Bachelor of Science, Computer Science, Statistics & Data Science

Los Angeles, CA

Sept. 2025 - June 2027

- **Minor:** Data Science Engineering
- **Relevant Coursework:** Data Structures & Algorithms, Object-Oriented Programming, Introduction to Systems Programming, Computer Organization, Statistical Computing
- Transfer from Diablo Valley College

EXPERIENCE

Software Engineering Intern

Lawrence Berkeley National Laboratory

Jan 2025 – Sept. 2025

Berkeley, CA

- Architected and deployed a distributed landslide monitoring system serving 15+ geological stations, reducing system downtime by 87% and enabling real-time hazard detection across 22 acres of landslide-prone hillside terrain.
- Engineered a scalable microservices architecture with InfluxDB time-series database integration, processing 17K+ sensor readings daily from 59 distributed sensors through LoRaWAN protocol and visualizing telemetry data via Grafana dashboards with sub-second latency.
- Developed precipitation classification algorithms using radar pattern recognition to distinguish between snow, rain, hail, and clear conditions from basic radar data, achieving 91.3% classification accuracy across 150K+ meteorological samples and reducing false positive rates by 29% in operational weather monitoring systems.

NCAS Software Specialist

NASA

July 2024 – Oct. 2024

Remote

- Developed autonomous rover control software in C++ with OpenCV computer vision algorithms for navigation across simulated Martian terrain, achieving 96% path planning accuracy over 500+ test scenarios and real-time obstacle detection.
- Developed real-time streaming system using WebRTC and Socket.IO for simulated rover telemetry, providing 4K multi-camera access to 3D Martian environments for remote mission control operations spanning 6+ hour simulation windows.
- Collaborated with cross-functional teams of 8+ engineers to debug mission-critical software failures, implementing fault-tolerant systems that improved system reliability under extreme environmental conditions.

PROJECTS

InstaQR | *Vanilla JS, Web Extensions API, Chrome DevTools Protocol*

Sep 2023 – Present

- Engineered a Chrome extension utilizing QR.js library and Canvas API, generating QR codes with sub-50ms processing time and achieving recognition award in Google's official Tools marketplace
- Integrated progressive web app features with manifest.json configuration and WebAssembly modules for enhanced encoding algorithms

PlanetPal | *SwiftUI, CoreML, Firebase, ARKit*

Sep 2023 – Nov 2023

- Architected iOS sustainability app using SwiftUI and Combine framework, tracking 25+ environmental metrics across individual users and reducing average carbon footprint through gamified behavioral interventions and ML-driven insights.
- Integrated Firebase Authentication and Firestore database for secure user accounts and real-time leaderboard functionality, achieving recognition as finalist in congressional hackathon competition.

TECHNICAL SKILLS

Languages: Python, C/C++, JavaScript/TypeScript, HTML/CSS, R, Swift, Assembly (x86-64)

Frameworks & Libraries: React, Node.js, Flask, Next.js, TensorFlow, PyTorch, Pandas, NumPy, OpenCV, CUDA

Tools & Platforms: Docker, Kubernetes, Git, Bitbucket, InfluxDB, Grafana, Vim