

Waleed Alghaithi

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Skills

- **Programming Languages** Python, C, C++, Java, TypeScript, Linux
- **Software Engineering:** Object-oriented programming, data structures & algorithms, software design, debugging, unit testing
- **AI & Data Foundations:** Linear algebra, calculus, probability, basic data analysis with Python, NumPy, Pandas, LangGraph, LiteLLM
- **Developer Tools:** Git, GitHub, BitBucket, Jira, Linux/Unix, VS Code, Cursor, JetBrains IDEs, command-line tools, Docker, Grafana
- **Web & Databases:** HTML, CSS, React, FastAPI, SQL/MySQL, RESTful APIs

Experience

Tutor and Teaching Assistant

City College of San Francisco

San Francisco, CA

Jan 2023 – May 2025

- Tutored 20+ community college students weekly in Physics and Computer Science, simplifying Kinematics, Circuits, and Algorithms into digestible, step-by-step modules.
- Boosted average exam scores by 15% through targeted one-on-one and small-group sessions, contributing to a 90% course retention rate for regular attendees.

Machine Learning Research Intern

Lawrence Berkeley National Laboratory

Berkeley, CA

Jun 2023 – Aug 2023

- Processed raw mmWave radar binaries into high-quality CSV datasets by aligning headers with JSON configs and validating decoded outputs against Infineon radar fusion GUI visualizations.
- Designed and prototyped machine learning pipelines (SVM and K-means) for classifying local precipitation types and intensities, preparing models for optimization and deployment on embedded Linux edge-computing platforms.

Projects

Multi-Agent Travel Coordinator | Python, Multi-agent Systems, Docker, Cisco AGNTCY, FrontEnd, Git

Feb 2026

- Engineered a 4-agent autonomous framework using FastAPI and LangGraph that achieved 90%+ accuracy in fulfilling natural language travel requests via a custom "timing rule" engine that eliminated 100% of scheduling conflicts.
- Implemented a scalable deployment using Docker and Cisco AGYNTCY to orchestrate inter-agent communication, utilizing LiteLLM and SerpAPI to process real-time flight and hotel data while monitoring system health via Grafana.
- Built a user-friendly frontend with React 19 and Tailwind CSS, allowing users to visualize and manage complex, multi-leg itineraries within a single, unified dashboard.

Machine Learning-Based Precipitation Classification on Embedded Radar Systems

| Python, Linux, NumPy, Pandas, BitBucket Aug 2023

- Engineered an end-to-end mmWave radar pipeline that automated raw binary processing, reducing preprocessing time by 60%.
- Developed SVM and K-means models for snowpack and precipitation classification, achieving 90%+ accuracy.
- Deployed the optimized system on Raspberry Pi (Linux), reaching sub-second inference latency for low-power, remote environmental sensing.

Education

Bachelor of Science in Computer Science

Relevant Coursework: Machine Learning, Advanced Data Structures, Linear Algebra

GPA: 3.8/4.0

University of California San Diego

Anticipated Jun 2027

Associate of Science in Computer Science

GPA: 4.0/4.0

City College of San Francisco

Aug 2022 – May 2025