
SUMMARY

Software Engineer, 5+ years in distributed systems, data acquisition, and test instrumentation. M.S. ECE, UC Santa Barbara (GPA: 3.69). US Citizen eligible for Secret clearance.

EXPERIENCE

Software Engineer

Dec 2020 – Oct 2024

Cisco Systems, Inc. · San Jose, CA

- Built data acquisition, client/server, and database systems — microservices in Python, Golang, Node.js across 10+ countries.
- Reduced latency 30% via root cause analysis and query optimization; maintained 99.99% uptime via Splunk on-call triage.
- Generated requirements and design documents; led design reviews across 8+ engineers through full SDLC — analysis through integration and deployment.
- Built React/TypeScript dashboards; enforced accuracy and testability via code reviews.

Software Engineer & Teaching Assistant

Jun 2019 – Mar 2020

University of California, Santa Barbara · Santa Barbara, CA

- Architected a platform adopted by 5,000+ students — CAS SSO, RBAC, state-machine workflows, automated testing via Jest and Pytest.
- Mentored students in programming, data structures, and algorithms as Teaching Assistant for an introductory CS class.

PROJECTS

MTMS — Missile Tracking & Test Management System

- TAOS-class range instrumentation platform — 6-DOF ISA atmosphere engine (position, velocity, acceleration, body attitude, Mach, q-bar), real-time 3D telemetry, flight-envelope anomaly detection, post-flight validation across 5 suites & 13 test cases.
- IEEE 830 SRS with live RTM; ReqIF 1.0 XML for IBM DOORS; PDF reports covering flight summary, anomaly log, and RTM coverage.

GNSS-VAL — GPS Signal Validation & Anti-Spoofing Monitor

- GPS monitor on simulated NMEA L1/L2 streams — 5 anti-spoofing algorithms (signal consistency, Doppler, clock drift, position jump, multi-constellation), satellite constellation polar plot, per-satellite SNR.
- Spoofing/jamming scenarios with severity classification, configurable thresholds, PDF export — IEEE 830 SRS with RTM coverage.

SKILLS

LANGUAGES Python, Golang, JavaScript, TypeScript, C, C++**DATABASES** MongoDB, MySQL, SQLite, PostgreSQL**RANGE & TEST** Test Instrumentation, Data Acquisition, 6-DOF Physics, GPS/PNT, Anti-Spoofing, NMEA Parsing**REQUIREMENTS** IEEE 830 SRS, ReqIF 1.0, IBM DOORS, RTM, ICD, SDLC, SDD**EMBEDDED** Embedded C, FPGA, Real-Time Systems, Linux, UML State Machines**SYSTEMS** Microservices, Client/Server, REST APIs, WebSockets, System Design**DEVOPS** AWS, Docker, Kubernetes, CI/CD, cppcheck**FULL STACK** React, Next.js, Three.js, D3.js, Node.js, Jest

EDUCATION

M.S. Electrical & Computer Engineering

2018 – 2020

University of California, Santa Barbara · Santa Barbara, CA

GPA: 3.69

B.Tech Electrical & Electronics Engineering

2013 – 2017

Indus University · Ahmedabad, India