ALAN ORDORICA

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Software Engineer | Backend Systems | Cloud & Embedded

Professional Summary

Software engineer with experience at leading technology companies in backend development, cloud computing, system automation, and distributed architectures. Driven to solve complex challenges using an iterative, AI-informed approach to design robust, scalable software and hardware solutions that enhance reliability and foster continuous improvement.

Experience

Google — Sunnyvale, CA
Software Engineer | Google Cloud SDN Platform — May 2022 – Dec 2024

- Led design and implementation of a gRPC + pub/sub-based load-testing framework (C++ / Python) simulating control-plane behavior at production scale, reducing full regression runtimes by **25%** and reclaiming **1.5 SWE-years** annually.
- Architected and delivered a controller orchestration system between multicast VM controllers and the VPC (virtual private cloud) gateways to replicate production pub/sub between thousands of gateway instances and controllers
- Maintained critical load-test systems in the CI/CD pipeline by provisioning isolated test sandbox containers, developing automated test monitoring systems for recovering and monitoring jobs, and creating scripts for automated metric collection, accelerating the developer feedback loop by **40%** and leading to a reduction in release-blocking failures by 30%.
- Scaled system-level load testing coverage, exposing critical bottlenecks in the release pipeline leading to a **35%** increase in total throughput
- Enhanced the control-plane testing by migrating the legacy virtual machine (VM) live migration system to a more scalable pub/sub architecture, increasing total migration throughput by **20%**.
- Collaborated with SRE and partner dev's to drive design reviews, brown-bag knowledge-sharing sessions, sprint planning/retrospectives and conducting peer code reviews of Python, C/C++ to improve code quality and team alignment, ensuring over **98%** uptime for critical test grids.

Apple — Sunnyvale, CA
Tools and Automation Engineer | CI Tools-Site Reliability — July 2020 - March 2021

- Led deployment of over 200+ testing racks housing 1,000+ devices; defined host configuration strategies for each rack's unique use case, driving a **50%** increase in availability, **30%** reduction in test scheduling wait times, and **20%** boost in overall lab uptime.
- Automated device provisioning and network setup with Python, Bash, and Ansible scripts—flashing firmware at scale and orchestrating batch configurations—to reduce manual setup time by and sustain **97%** lab uptime.
- Developed custom Splunk monitoring and remediation tools, integrating gathered metrics into dashboards and internal alerting systems, enabling real-time detection and auto-recovery of host and device failures, which cut device downtime by **27%** and improved test success rates by **34%**.

Full Stack Developer — Remote
Software Engineer — January 2020 - Present

- Developed modular React frontend and Node.js backend portfolio web apps with Docker Compose for local orchestration, enabling rapid environment setup.
- Developed Node.js RESTful microservices and ESP32-based automation projects using Python, Bash, and other tools, showcasing proficiency in hardware-software integration and system-level programming.

Technical Skills

Languages, Libraries & Frameworks: C/C++, Python, JavaScript/Node.js, SQL, Bash, JSON, Java, Yaml, Dart, Flutter, React, ESP-IDF, FreeRTOS

Cloud & DevOps: Docker, Kubernetes, Git, Ansible, CMake, SDN

Embedded Systems: ESP32, I^2C, SPI, BLE, GDB

EDUCATION

San Francisco State University — San Francisco, CA
Bachelor of Science in Computer Engineering — December 2019