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.

Technical Skills

Languages, Libraries & Frameworks

C/C++ | Python | Go | JavaScript | JSON | Java | SQL | NoSQL | TypeScript | React | Node.js/Express | ESP-IDF | FreeRTOS

Cloud & DevOps

Docker | Kubernetes | Git | Ansible | GCP | Pub/Sub | CMake | Bazel | Splunk | SDN

Embedded Sys

ESP32 | I^2C | SPI | BLE | GDB

Experience

Google — Sunnyvale, CA

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

- Drove development of internal Python/C++ load-testing framework, implementing gRPC, protobuff and pub/sub based workflows and components to replicate networking control-plane behavior—reducing test runtimes by **25%** and saving **1.5 SWE-years** via regression detection.
- Spearheaded the design and developement of a VPC gateway and multicast VM controller feature into the framework—extending C++ control-plane emulation and authoring Python orchestration scripts—to replicate the production pub/sub communication between 1k+ VPC gateway components to each multicast VM controller, expanding the scope testing, uncovering critical scalability issues and reducing system bottlenecks by **35%**.
- Automated and maintained critical CI/CD pipeline load-test tasks by provisioning isolated test sandbox containers, creating CRON test monitoring jobs, and scripting metric collection tasks with python and SQL—to reduce release-blocking failures by 30% and accelerate developer feedback loops by **40%**.
- Enhanced the control-plane testing by migrating legacy host VM live migration system to a more scalable pub/sub architecture, boosting system throughput by **20%** and improving test accuracy (reducing false negatives) by **35%**.
- 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

DevOps Engineer Intern | CI Tools-Site Reliability — July 2020 - March 2021

- Led a team to design, wire, and deploy 200+ test 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.

EDUCATION

San Francisco State University — San Francisco, CA

Bachelor of Science in Computer Engineering — December 2019