

Marty Ross

mdross510@gmail.com — www.linkedin.com/in/mdross510 — noodnik2.github.io — 510-969-6066

Career Summary

- ❖ Developed an in-house serverless backend and SPA frontend to automate SLO workflow definition, calculation, and tracking of Error Budgets across >2,000 enterprise teams using NewRelic Agents & NRQL, OpenTelemetry, and Snowflake data, fostering a paradigm shift towards achieving aggressive milestones.
- ❖ 5+ years full-stack Enterprise Cloud development (AWS, GCP) using Golang, Java, Node.js, Typescript, Python.
- ❖ Extensive experience with Terraform, Jenkins, GitHub Actions, S3, Lambda, CI/CD, and scalable architectures.
- ❖ Recognized for providing excellent customer service and mentoring team members through a growth mindset.

Skills

- ❖ Golang, Java, Node.js, Python, Typescript
- ❖ Serverless: AWS Lambdas, Cloud Functions, Step Functions, Workflows, APIs, Cron Jobs & Event Handlers
- ❖ Message Busses: SQS/SNS/EventBridge, Kafka, Cassandra, RabbitMQ, Mulesoft
- ❖ Persistence: NoSQL (DynamoDB, Cassandra, Kafka KTable, Redis), SQL (Oracle/PL/SQL, MySQL, Postgres)
- ❖ Microservice Integration using REST, gRPC, Event Bus APIs & Docker & Kubernetes Container Orchestration
- ❖ TDD using “Testing Pyramid” (Fowler; e.g. with Golang tests, Junit, Jest)
- ❖ CI/CD using Jenkins, CircleCI, Git Actions, Pipeline/Infrastructure as Code: Terraform, Helm, CloudFormation

Standards / Frameworks

- ❖ Authentication/Authorization/Access: OAuth 2.0, OpenID, LDAP, AWS IAM/Cognito
- ❖ Network: TCP/IP, OSI 7-Layer
- ❖ Schemata: XML, HTML, gRPC, JSON Schema, OpenAPI
- ❖ Large Language Models: Langchain, OpenAI, Gemini, Ollama

Professional Experience

CapitalOne(San Francisco, CA) 09/2023 - Present Sr. Software Engineer

- ❖ Rollout to over 2,000 teams, each defining its own SLIs & SLOs using NewRelic NRQL.
- ❖ Implementation of Error Budget Dashboards & Notifications, SLO Approval Workflow.
- ❖ Developed service enabling all Enterprise teams to define their own Service Level Indicators (SLIs) and related Service Level Objectives (SLOs) and providing real-time behavioral feedback to Management regarding current Error Budgets within their jurisdiction.
- ❖ Implemented Golang APIs (backend) and Angular/Typescript Services and Components (front-end) to collect, analyze and present performance metrics using NewRelic, Open Telemetry, DynamoDB, Snowflake, and other sources.

Crunchyroll (San Francisco, CA) 04/2021 - 03/2023 Sr. Software Engineer

- ❖ Served as Development Lead during my tenure to complete one or more concurrent strategic functional & non-functional CMS improvement initiatives, helping to bolster team’s reputation and meet corporate goals.
- ❖ Performed strategic refactoring using “seams” to increase testability & code coverage across four backend codebases by an average of 25%, resulting in greater stability, confidence and developer productivity.
- ❖ Optimized database access plans after surveying “in the wild” query and update persistence behaviors for the most critical two of the CMS services, resulting in increased throughput by 20-50%.
- ❖ Reduced frequency and MTTR of “sev 1” issues (e.g., stemming from NPE, OOM or API drift) by 30% through the above improvements, and exposed custom metrics using NewRelic Agent while improving dashboards using NRQL.

Self Employed (Berkeley, CA) 05/2020 - 02/2021 Part Time Consultant

- ❖ Embraced several paid and volunteer opportunities in the first year of the COVID epidemic.
- ❖ Created a new data processing pipeline using Spring Batch toolset.
- ❖ Maintained and enhanced a non-profit website using WordPress.

Revinate (San Francisco, CA) 04/2018 - 04/2020 Staff Engineer

- ❖ Engineered a Groovy script-based plug-in architecture, empowering field technicians to implement site-specific customizations and resolve issues independently. This enhancement increased core team availability by 50%, facilitating an accelerated schedule for roadmap functionality improvements.
- ❖ Utilized Docker, Minikube (Kubernetes), Terraform and Helm Charts to streamline handoff from local development & component-level testing to the Jenkins-based CI/CD integration tests & production deployments.
- ❖ Developed ETLs (extract, transform, load) for many disparate shapes of customer data, and resulting abstractions to core model.

Navis (Oakland, CA) 10/2011 - 12/2017 Staff Engineer

- ❖ Led implementation of the Navis Equipment Control Interface (ECI) facade REST API - a strategic refactoring of the Navis Terminal Operating System (TOS) architecture - to extract, repack and centrally deploy all functionality related to the underlying Crane Control System. Once in place, new Crane Control Systems could be on-boarded in 25% of the time required previously due to reduced affected code surface and related testing liability. Also, the time needed to develop and take new TOS features to market was significantly improved due to this new separation of concerns.
- ❖ Reduced MTTR by 15% through strategic use of both APM and custom metrics, and established on-premises dashboards with NewRelic; visualized protocol traces significantly improved troubleshooting efficiency.
- ❖ Created CI/CD tooling and automated test coverage reporting, promoting test driven development (TDD) principles.

Education / Training

- ❖ **Bachelor of Arts (BA)**
University of California (Los Angeles, CA)
Economics, Psychology (with emphasis on econometrics and statistics)