

Martin Ross

www.linkedin.com/in/mdross510 — noodnik2.github.io

Career Summary

- ❖ **Led development** of key components in a serverless Golang backend and Angular SPA, automating SLO and Error Budget tracking for 2,000+ enterprise teams.
- ❖ **Built scalable data pipelines** with Snowflake, DynamoDB, gRPC, SNS, Kafka, and Spark for real-time and batch processing.
- ❖ **Proficient** in CI/CD tools (Jenkins, GitHub Actions), serverless workflows (Lambda, S3), and scalable architectures.
- ❖ 5+ years of **enterprise cloud development** (AWS, GCP) with Golang, Java, Node.js, TypeScript, and Python.
- ❖ **Recognized** for delivering exceptional customer service and mentoring team members to foster a growth mindset.

Skills

- ❖ **Full-Stack Development:** FastAPI, Django, Express.js, Spring Boot, NestJS, Next.js, React, Angular, Tailwind CSS
- ❖ **Programming Languages:** Java (10+ yrs), Python (7+ yrs), Node.js (6+ yrs), TypeScript (5+ yrs), Golang (4+ yrs)
- ❖ **Serverless:** Lambda, Step Functions, Fargate, API Gateway, CloudWatch Events, EventBridge
- ❖ **Message Buses:** SQS, SNS, EventBridge, Kafka, RabbitMQ, Mulesoft
- ❖ **Persistence:** NoSQL (DynamoDB, Cassandra, Redis), SQL (Oracle, MySQL, Postgres, Snowflake)
- ❖ **Microservices & Integration:** REST, gRPC, Fargate, Docker, Kubernetes, Event Bus APIs
- ❖ **Test-Driven Development (TDD):** Testing Pyramid, Cucumber BDD, Golang Tests, JUnit, Jest, Minikube
- ❖ **CI/CD & DevOps:** Jenkins, CircleCI, GitHub Actions, Terraform, Helm, CloudFormation

Standards & Frameworks

- ❖ **Authentication & Authorization:** AWS IAM, AWS Cognito, LDAP, OAuth 2.0, OpenID
- ❖ **Networking:** DNS, TCP/IP, OSI 7-Layer Model
- ❖ **Data Formats:** JSON, YAML, Avro, Protocol Buffers (protobuf), XML, HTML
- ❖ **Data Schemata:** JSON Schema, Avro Schema, GraphQL Schema, XSD, DTD
- ❖ **API Frameworks:** REST, OpenAPI, gRPC, GraphQL, SOAP
- ❖ **Large Language Models:** LangChain, OpenAI, Gemini, Ollama, RAG, Chroma
- ❖ **Observability:** OpenTelemetry, New Relic, OpenTracing, Zipkin
- ❖ **Cloud:** AWS, Google Cloud, Azure

Professional Experience

CapitalOne(San Francisco, CA) 09/2023 - 06/2024, 08/2024 - Present Sr. Software Engineer (Contractor)

- ❖ Engineered a scheduled **AWS Lambda** to query **Snowflake** tables and trigger **Slack** notifications via **SNS Webhook**.
- ❖ Built Gherkin DSL integration tests in Go, creating a de-facto standard adopted by teams for enterprise testing.
- ❖ Contributed to enabling 2,000+ teams to define SLIs and SLOs by helping discover, collect, and analyze observability metrics (using **OpenTelemetry**, Snowflake, APIs, SQL, and **New Relic NRQL**).
- ❖ Developed an Enterprise Site Reliability service with a serverless Golang backend (**DynamoDB**) and a Typescript/Angular frontend, including **Error Budget** Dashboards, Notifications, and SLO Approval Workflows.

Self Employed (Berkeley, CA) 04/2023 - 09/2023 Independent Consultant

- ❖ Embraced several paid and volunteer opportunities using Java, **C#** and PHP (WordPress).

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

- ❖ Served as Golang **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 of four backend **Golang** codebases to increase their testability & code coverage by an average of 25%, resulting in greater stability, confidence and developer productivity.
- ❖ Optimized MySQL 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) 04/2020 - 04/2021 Independent Consultant

- ❖ Created a new data processing pipeline using the Play Framework and **Spring Batch** toolset.
- ❖ Started an open-source event-processing pipeline project using **Kafka**, Golang, Python, **React**/Typescript, Kubernetes.
- ❖ Maintained and enhanced a non-profit website using WordPress.

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

- ❖ Decomposed a Java monolith into manageable and extendable services within a **Kubernetes** cluster running within AWS.
- ❖ Implemented multi-sourced (push events, pull ETLs) data pipeline with **gRPC** normalization schemata and Kafka / **KTable** backbone to deliver high throughput customer streams to **Apache Spark** and other consumers.
- ❖ Engineered a **Groovy** script-based plug-in architecture, empowering field technicians to implement site-specific ETL 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.

Sabbatical (Berkeley, CA) 12/2017 - 04/2018

- ❖ Sabbatical abroad with family.
- ❖ Learned Golang, Containerization and AWS EC2 and S3 Cloud Services and APIs using Coursera.

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

- ❖ Led implementation of the Navis Equipment Control Interface (ECI) facade REST API in **Java Spring Boot** - a strategic refactoring of the flagship Navis **Terminal Operating System** (TOS) architecture - enabling new Crane Control Systems to be on-boarded four times faster, and reducing the time needed to develop and release new TOS features.
- ❖ 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 using GitHub and Jenkins, automating test coverage reporting, promoting test driven development (TDD).

Education

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