Martin Ross

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Career Summary

- **Full-stack** software engineer with 15+ years of professional experience delivering scalable, cloud-native applications in Python, TypeScript, Golang and Java.
- **Proven track record** designing and implementing REST APIs from scratch and building responsive front-end interfaces with HTML/CSS and modern frameworks.
- Experienced in applying effective problem-solving techniques to optimize system performance, with recent leadership in **Chaos Engineering** initiatives to harden mission-critical financial services in AWS.
- **Recognized** for blending deep technical expertise with cross-team collaboration to deliver secure, reliable, and high-performance systems.

Skills

- **Languages & Frameworks:** Python, TypeScript, Golang, Java, Node.js, Angular, React, Next.js, FastAPI, Django, Express.js, NestJS
- **API & Integration:** REST API design from scratch, OpenAPI, GraphQL, gRPC, WebSockets
- **Front-End Development:** HTML5, CSS3, Tailwind CSS, Responsive Design, a11y, i18n
- **Cloud & DevOps:** AWS (Lambda, Step Functions, API Gateway, DynamoDB, S3, Fargate), CI/CD (GitHub Actions, Jenkins, CircleCI), Terraform, Helm, Docker, Kubernetes
- **Resilience & Observability:** Chaos Engineering (AWS FIS, custom tooling), OpenTelemetry
- **Databases:** DynamoDB, MySQL, PostgreSQL, Snowflake, Redis, Cassandra
- **Other:** TDD/BDD, Agile/Scrum, Performance Optimization, Distributed Systems

Professional Experience

Capital One — Sr. Software Engineer (Contractor)

San Francisco, CA | 09/2023 – 06/2024, 08/2024 – Present

- Led development of an Enterprise Site Reliability service combining a serverless **Golang** backend (**DynamoDB**) and a **TypeScript**/Angular frontend, delivering Error Budget dashboards, automated SLO workflows, and real-time notifications.
- Designed and implemented multiple AWS **Lambda** services in **TypeScript** and **Python** to query Snowflake datasets and trigger automated Slack alerts via **SNS** webhooks.
- Established enterprise-wide BDD integration testing patterns in **Go** and **Python**, improving test coverage and consistency across 2,000+ teams.
- Initiated and led a **Chaos Engineering** program leveraging **AWS FIS** and custom tooling to run controlled failure experiments in production as part of CI/CD, increasing resilience and reducing recovery times.

Self-Employed — Independent Consultant

Berkeley, CA | 04/2023 – 09/2023

- ❖ Delivered custom software solutions in Java, C#, and PHP (WordPress) for commercial and nonprofit clients.

Crunchyroll — Sr. Software Engineer

San Francisco, CA | 04/2021 – 04/2023

- ❖ Developed AWS Step Function-driven **TypeScript** Lambdas for content management workflows.
- ❖ Led refactoring of four **Golang** backend services to improve testability and code coverage by 25%, increasing stability and developer productivity.
- ❖ Optimized **MySQL** queries for two high-traffic CMS services, increasing throughput by 20–50%.
- ❖ Reduced frequency and MTTR of critical incidents by 30% through code improvements, enhanced dashboards, and custom metrics with New Relic NRQL.

Self-Employed — Independent Consultant

Berkeley, CA | 04/2020 – 04/2021

- ❖ Built a streaming event-processing pipeline using **Kafka**, **Golang**, **Python**, and **React/TypeScript** deployed on **Kubernetes**.
- ❖ Created a batch processing system using **Spring** Batch for large-scale ETL workloads.

Revinate — Staff Engineer

San Francisco, CA | 04/2018 – 04/2020

- ❖ Decomposed a **Java** monolith into containerized microservices on AWS Kubernetes.
- ❖ Built a high-throughput customer data pipeline using Kafka/KTable, gRPC, and Spark.
- ❖ Designed a plugin architecture enabling field technicians to deploy custom ETL logic independently, increasing core team availability by 50%.

Navis — Staff Engineer

Oakland, CA | 10/2011 – 12/2017

- ❖ Designed and implemented a Spring Boot **REST API** to integrate new crane control systems, reducing onboarding time by 75%.
- ❖ Automated CI/CD test coverage reporting and promoted TDD practices across the team.

Education

- ❖ Bachelor of Arts (BA)
  University of California (Los Angeles, CA)
  Economics (with emphasis on Econometrics and Statistics)