

MICHAEL RICHTER

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EXPERIENCE

Capital One, Richmond, VA

AUGUST 2020 – Present

Senior Associate Software Engineer

- Owned the design, development, and production deployment of 20+ production AWS Lambda-based services supporting data transformation, secure file delivery, and REST APIs used by downstream financial systems
- Defined and implemented a message-queue-driven architecture (AWS SQS) to prevent duplicate processing and improve system reliability, ensuring idempotent workflows across distributed services
- Designed and implemented a serverless reconciliation pipeline processing ~1,000 financial wire transactions per day, leveraging AWS Lambda and DynamoDB (NoSQL schema and GSI design) to detect and resolve data inconsistencies between internal and external systems
- Led the end-to-end development and rollout of a serverless compliance component that encrypted external documents using PGP, eliminating duplicate uploads and saving 30+ associate hours per month
- Automated AWS infrastructure configuration (S3 policies, triggers, and cross-region deployments) across 15 production buckets, reducing manual setup errors and ongoing maintenance overhead
- Improved data ingestion accuracy and efficiency by ~90% by replacing a manual transformation process with an automated Python (Pandas) pipeline integrated with external APIs
- Implemented API pagination and performance improvements in Java-based services to support large-scale loan data retrieval while maintaining database performance
- Conducted load and stress testing using Apache JMeter to identify database performance bottlenecks prior to production releases
- Executed annual disaster recovery exercises validating cross-region resiliency across AWS services
- Mentored junior and mid-level engineers through onboarding, code reviews, and design discussions, improving team delivery speed and code quality

Old Dominion Freight Line, Thomasville, NC

May 2019 – August 2019

Software Engineer Intern

- Developed REST microservices using Spring Boot in a production environment, supporting freight delivery workflows
- Implemented integration tests and mock services, creating 50+ test cases to validate service behavior prior to deployment

EDUCATION

Georgia Tech, Atlanta, GA

EXPECTED GRADUATION: MAY 2028

Masters of Computer Science

Virginia Tech, Blacksburg, VA

MAY 2020

Bachelor of Computer Science, Minor in Mathematics

SKILLS

Languages: Python, Java, JavaScript, SQL

Cloud / Infra: AWS (Lambda, EC2, S3, RDS, SQS, SNS, IAM, DynamoDB)

Tools: Git, Jenkins (CI/CD), Docker, Unix/Linux, JIRA

Certifications: AWS Certified Cloud Practitioner