CEDRIC MCGUIRE
Software Engineer

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EXPERIENCE

CAPITAL ONE FINANCIAL CORPORATION — McLean, VA
Principal Software Engineer
June 2021 – Present

- Owned the real-time debit settlement platform for Virtual Cards, processing card network authorization and settlement event streams using Apache Flink on AWS Kinesis Data Analytics with exactly-once, event-driven processing to reconcile streams and drive transaction posting decisions at scale.
- Architected stateless Flink streaming jobs with externalized state management using DynamoDB, SQS, and Lambda, enabling deterministic processing, replay handling, and failure recovery.
- Architected and administered a Global Aurora Serverless PostgreSQL datastore as head database administrator, designing custom failover routing, RDS Proxy–based connection pooling, IAM permissions, and operational maintenance to meet strict availability and latency requirements.
- Led and owned an enterprise-wide off-hours cost-optimization platform, built as a fully idempotent, retryable serverless workflow using AWS Step Functions and Lambda, driving ~60% cost reduction across non-production environments.
- Architected and owned a serverless data pipeline emitting events to SQS and persisting analytics-ready data into Snowflake, supporting finance and engineering stakeholders.
- Established production-grade observability and incident response using New Relic and PagerDuty; served as on-call owner for systems impacting the entire enterprise, including disaster recovery scenarios, while mentoring engineers and contributing to new graduate training programs.

ABN AMRO CLEARING CHICAGO LLC — Chicago, IL
Global Data SWE Intern
May 2019 – August 2020

- Built high-frequency trade parsing tools in C# to ingest millions of daily trades from international exchanges.
- Automated data validation and transformation pipelines using SQL, Informatica, and Tableau to support reporting and compliance.
- Gained strong foundational knowledge of global derivative markets via CME-accredited trading coursework and live sessions.

TECHNICAL SKILLS

Languages: Python, Java, TypeScript, Groovy, C#, C, x86-64 Assembly
Cloud: AWS (*Solutions Architect*), Lambda, Step Functions, Serverless, Event-Driven Architecture, Flink
Databases: Amazon Aurora, DynamoDB/NoSQL, PostgreSQL, MySQL, Snowflake, Data Pipelines, Streaming
Tooling & DevOps: REST APIs, CI/CD pipelines (Jenkins), Docker, Git
Observability: New Relic, PagerDuty, Logging, Metrics, Incident Response, Production On-Call, SLAs/SLOs
Methodologies: Infrastructure as Code, DevOps, Mentorship, Technical Leadership, System Architecture, Agile

EDUCATION

THE OHIO STATE UNIVERSITY — Columbus, OH
August 2018 – May 2022
Bachelor of Science in Computer Science and Engineering, Magna Cum Laude
Concentration in Artificial Intelligence
Business Minor