

JONATHAN DONG

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EDUCATION

University of Michigan

B.S.E. in Computer Science and B.S.E. in Engineering Physics

September 2019 – April 2023

Ann Arbor, MI

- GPA: 3.6/4.0, *Magna Cum Laude*
- Relevant Computer Science Coursework: Machine Learning, Autonomous Robotics, Operating Systems, Web Systems, Computer Architecture
- Relevant Physics Coursework: Statistical Physics, Quantum Mechanics, Electricity and Magnetism, Lagrangian and Hamiltonian Mechanics
- University of Michigan Weightlifting

EXPERIENCE

Capital One

Software Engineer

August 2023 – Present

Chicago, Illinois

- Lead the migration of a Java-based API from a legacy third-party data source to custom serverless cloud infrastructure built with AWS ECS and GraphQL.
 - Conducted in-depth analysis of datasets covering 100,000+ customer accounts, identifying inconsistencies and ensuring alignment across both legacy and new systems.
 - Collaborated with data engineering teams to resolve over 1,000 data consistency issues, improving system reliability ahead of the production launch.
- Developed and deployed an external-facing website using TypeScript, React, and Next.js that interfaces with a CDN and uses server-side rendering to allow non-technical teams to easily make updates to content on the site.
 - Achieved a 75% reduction in support hours by streamlining onboarding processes for new external partners, leading to improved partner satisfaction and internal efficiency.
- Designed and implemented search functionality using AWS OpenSearch for an external-facing website improving data accessibility and reducing user friction in navigating site content.
 - Built a data ingestion pipeline on AWS Lambda to ensure that search indexes remained synchronized with live data.
- Engineered microservices in Python deployed on AWS Lambda responsible for fetching and delivering customer rewards information across web and mobile platforms.
 - Implemented Swift-based UI components for the Capital One iOS app to display rewards information to more than 100,000 customers.

SKILLS

Technologies: Java, TypeScript, Python, Swift, JavaScript, HTML/CSS, GraphQL, SQL

Frameworks/Libraries: React, Next.js, Spring Boot, Flask, Node.js

Cloud/DevOps: AWS (Lambda, ECS, DynamoDB, OpenSearch, S3), Docker, CI/CD, Git

Tools: VS Code, IntelliJ, Postman, JIRA, Figma

CERTIFICATIONS

- AWS Certified Solutions Architect - Associate