

Experience

Capital One

Mar 2024 – Present

Senior Associate Software Engineer, Card Tech DevOps

McLean, VA

- Engineered a novel deployment solution enabling cross-dependent AWS CloudFormation stacks to deploy sequentially or in parallel via Jenkins CI/CD, reducing production release time by ~35% (200 minutes) for a business-critical Card platform. Independently delivered feature in half the scheduled timeline.
- Won the **CIO TechX Award Q3 2024** for demonstrating significant achievement towards enterprise DevOps imperatives.
- Launched an internal React site and ETL process to search for infrastructure-as-code patterns used throughout the enterprise, serving 400+ engineers with a reported development time savings in building architectures of ~1 hour per visit.
- Led project to create conversion documentation for year-long migration to new IaC pipeline, saving 1,000+ developer hours across Card Tech. Created prototypes to automate application migration.
- Developed fully automated regression tests in Go for a major pipeline component, doubling team productivity by preventing breaking changes from impacting users and freeing team capacity.
- Contributed capabilities and fixes to innersource projects to unblock Card Tech teams onboarding onto IaC pipeline.

Capital One

Feb 2023 – Feb 2024

Associate Software Engineer, Data Science Feature Platform

McLean, VA

- Designed a stateless multi-region Lambda API in Python to enforce platform-wide governance policies across services handling 40,000+ machine learning features in QA and production, centralizing and streamlining future policy changes.
- Enhanced the core Feature Platform Python Notebook SDK to support localized data compliance checks for power users.
- Conducted cross-team end-to-end integration tests to validate that the feature lifecycle met business needs and SLAs.

Capital One

Jun – Aug 2022

Software Engineering Intern, Data Science Feature Platform

McLean, VA

- Built proof-of-concept workflow to collect and display data drift metrics of ML feature datasets, improving data drift visibility for data scientists and analysts training ML models. Handed off for adoption and piloting post-internship.
- Configured an Argo Events sensor to trigger workflows that store data in AWS OpenSearch, and developed a Lambda API proxy and React frontend to visualize results in dynamic charts.

Suvoda

Jun – Aug 2021

Software Engineering Intern, Innovation Research

Conshohocken, PA

- Researched ML opportunities (e.g., time series regression, document data extraction) in Suvoda's clinical trial logistics platform, and evaluated Microsoft SQL Server data quality to determine feasibility.
- Presented findings and recommendations to Product Development senior leadership.

Education

University of Maryland, College Park

2021 – 2022

Master of Science, Computer Science

GPA 4.0

Research: *Vision Transformer for Image Clustering*

University of Maryland, College Park

2018 – 2021

Bachelor of Science, Computer Science and Mathematics

GPA 3.94, Cum Laude

Selected Coursework: Machine Learning, Data Science, Software Engineering, Data Structures, Algorithms, OOP, DBMS, Computer Vision, Multivariable Calculus, Linear Algebra, Statistics

Skills

Certifications: AWS Certified Solutions Architect – Associate

Programming Languages: Python, Go, Java, TypeScript, JavaScript, Groovy, C, C++, C#, OCaml, R, SQL, MATLAB, HTML

Cloud and DevOps: AWS, AWS CloudFormation and CDK, Docker, Kubernetes, Jenkins

Data and ML: Jupyter, PyTorch, TensorFlow, Snowflake, Splunk

Frameworks and Tools: React, Node, Git, GitHub Copilot

"Able to work through ambiguous problems beyond expectation." – Manager Performance Review