

# SAHIR MODY

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## EXPERIENCE

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### Software Development Engineer • Amazon

August 2022 – PRESENT

- Designed and developed an experimental validator to create curated detail pages for high-value Amazon sellers that protected 1,400+ item families from instability and reduced catalog churn for the initial selected selling partners by over 45%
- Presented the experimental validator project to senior and principal engineers across Amazon, describing its behavior in complex cases and the implementation of queryable logs and dashboards to monitor the validator's effects on Amazon's catalog
- Engineered a Java API service hosted on AWS to enrich seller product submissions involving multiple package hierarchies
- Implemented comprehensive metrics reporting and error handling, and built/integrated clients for downstream system dependencies, resulting in a highly available service monitored in real-time and easily troubleshooted using AWS CloudWatch
- Authored comprehensive documentation, runbooks, test and launch strategies, and dashboards for the team's new API, enabling 6 other developers to quickly onboard to the project, collaborate effectively, and debug the service during on-call shifts
- Tracked the root causes of automated test suite failures blocking deployments across multiple teams over several months, and collaborated with product managers to outline, prioritize, and implement projects to reduce the test failure rates by over 50%
- Wrote Python scripts to automate common SQL queries that are part of the team's standard operating procedures for identifying sources of transient and internal errors to enable faster root cause analysis and mitigation of high severity events
- Led the team's Kanban process, collaborating with team members to optimize workflows and facilitate knowledge sharing sessions to give developers more visibility into the team's larger goals and projects, as well as track productivity metrics
- Served as the team's policy risk manager, identifying and mitigating over 70% of long-standing violations within 3 months

### Software Development Engineer Intern • Amazon

June 2021 – August 2021

- Implemented an AWS Lambda to periodically retrieve schema for 10,000+ catalog attributes and cache data in S3
- Developed a query builder UI with React to pull cached attributes and help users construct complex SQL queries without error
- Added usage metrics and access control for new UI to see how effectively it addressed customer issues about writing queries

### Software Engineering Intern • Capital One

June 2020 – August 2020

- Engineered a dashboard application with JavaScript and Flask to track software usage data over thousands of computers
- Created API endpoints to retrieve results of company-wide database queries and format data for visualizations with D3.js

### Software Engineering Intern • Capital One

June 2019 – December 2019

- Wrote Python scripts in Jupyter Lab to process 2,000+ cybersecurity events and find patterns indicating suspicious behavior
- Redesigned language processing and data visualization app interface to be more intuitive and user-friendly using C3.js

## EDUCATION

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### University of Maryland, College Park

August 2018 – May 2022

B.S. in Computer Science with Business Analytics Minor • Magna Cum Laude

## TECHNICAL SKILLS

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**Programming Languages:** Java Python SQL C HTML CSS JavaScript

**Technologies:** Amazon Web Services Git Flask Keras Node.js Express jQuery Mockito

## PROJECTS

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### Moodbird Satisfaction Dashboard

- Built an API with Flask to perform sentiment analysis with Python NLTK on thousands of tweets based on search terms and created an interactive graphical dashboard with Chart.js to retrieve and summarize the analysis results in simple visualizations
- Project placed in the Top 3 out of 10 teams at the Capital One Software Engineering Summit Hackathon

### Machine Learning Stock Predictor

- Implemented a web application tool to retrieve and pre-process a company's historical stock data with Pandas, train a neural network created with Keras, and display line graphs of the model's predictions after each epoch of training with C3.js