

Mohammed Islam

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EDUCATION

Cornell University, College of Engineering, Ithaca, NY

May 28, 2023

B.S in Computer Science

GPA: 3.128 | Honors: Joan & Irwin Jacobs Dean Scholar College of Engineering

Coursework: Algorithms Analysis | Cloud Computing | Database Systems | Operating Systems | Computer Vision | Data Structures & Functional Programming | Computer System Architecture | Object-Oriented Design | Machine Learning | System Security | Game Theory

EXPERIENCE

Capital One Financial Corporation

Aug. 2023–Present

Associate Software Engineer

McLean, VA

- Designed and implemented an end-to-end UI component that facilitates the seamless export of both real-time frontend display and backend enterprise cybersecurity data to a local CSV file using a combination of Typescript, React, SQL, and Snowflake
- Engineered a backend analytics algorithm designed to dynamically calculate the count of enterprise risks based on threat levels, non-mitigated controls, and SPROs, accompanied by a front-end UI feature that showcases the algorithm's real-time results
- Developed a versatile and transferable "Helper Icon" UI component tailored for various features, enhancing client site usability.

Blackstone Inc.

Jun. 2022-Aug. 2022

Technology Summer Analyst

New York, NY

- Developed an internal early-warning notification system to monitor AWS organization entities' max quota limits and recommend appropriate security control adjustments using a combination of Lambda Functions, Amazon Event-Bridges, and Step-Functions
- Designed a module to validate permission policies and alert developers of flaws in their Terraform deployment infrastructure
- Implemented a data collection, storage, and analysis pipeline with Lattice, Snowflake, and Tableau for BX Campus Recruitment

Lockheed Martin Corporation

Jun. 2021-Dec. 2021

Software Engineering Intern

Owego, NY

- Utilized AWS S3, EMR, & DynamoDB resources to design and optimize automation software within the internal Data Lake reservoir for data mining operations, secure transmission between clients, and data storage services for multiple departments.
- Enhanced stakeholder account security by creating an automated AWS Lambda script to update S3 security policies and rotate secure access keys, streamlining and fortifying access privilege across various client and internal Data Lake accounts
- Maintained a Confluence page with documentation & technical presentations to communicate approaches and strategies to seniors

PROJECTS

Limit Notifier & Policy Validator

Jun. 2022-Aug. 2022

- Created an automation script to track and recommend firmwide allocation of AWS security resources between users and groups.
- Integrated the notifiers with a transferrable Terraform subsystem to validate and alert teams of permission flaws pre-deployment.
- Built the system with various modularized resources to efficiently add future notifiers and increase scalability.

Service Central Platform

Jun. 2021-Dec. 2021

- Designed Python scripts to access the Data Lake AWS admin account and implement scripts to automatically update S3 buckets.
- Optimized Service Central Platform with departmental-specific GUI and updated A.D. group systems using new script packages.
- Programmed each software to automate data visualization, storage, and transmission jobs for specific client and department use.

Irregular Terrain Model (ITM) Analysis Tool

Jun. 2020-Aug. 2020

- Developed an interactive program to detect base stations within a specified radius and run a detailed analysis of its subsystems.
- Expanded the software to conduct interference tests and build a database from detectable 4G LTE tower frequency bands.
- Adapted to operate with a GUI, allowing for various uses - network tests, precision grid mapping, and satellite transmission.

SKILLS, LANGUAGES, & CERTIFICATIONS

Technologies: JAVA, Python, Typescript, React, OCaml, C#, C++, Amazon Web Service, Terraform, Tableau, Snowflake, SQL

Foreign Languages: English, Bengali, Spanish, Hindi

Certifications: Occupational Safety and Health Administration (OSHA), CNC Machine Trained, AWS Associate Solutions Architect