

# Sharanya Garika

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## TECHNICAL SKILLS

**Languages:** Java, Python, JavaScript, TypeScript, SQL, HTML/CSS

**Cloud Platforms:** AWS (S3, EC2, Lambda, Glue, Redshift, RDS, Athena)

**Databases & Querying:** MySQL, PostgreSQL, Oracle, DB2, SQL Server

**Machine Learning:** Scikit-learn, XGBoost, Random Forest, Naive Bayes, KNN, PCA, Feature Engineering, LLaMA

**Frameworks & Tools:** Spring Boot, React, Angular, Hibernate/JPA, Docker, Jenkins, Git, CI/CD, Agile/Scrum

## EXPERIENCE

### Research Assistant - George Mason University

Jul 2025 - Present

*Fairfax, VA*

- Developing **Python scripts** to analyze **student and faculty discussions** on **Generative AI**, uncovering **usage patterns, adoption trends, and ethical themes** in higher education.
- Collecting and **preprocessing unstructured data** from platforms like **Reddit** and academic sources to generate insights supporting policy and curriculum design.

### Research Assistant - Univ Life Project & Process Mgt (GMU)

Oct 2024 - May 2025

*Fairfax, VA*

- Conducted **user interviews and data analysis** for the **Health & Immunization** wing to understand student challenges in submitting vaccination and medical forms through the university portal.
- Built dashboards using **Tableau** and **Matplotlib** to visualize response patterns, bottlenecks, and feedback from interview sessions.

### Associate Data Engineer and Analytics - Optum

Aug 2022 – Jul 2023

*Remote*

- Utilized pre-configured **AWS DMS** pipelines to ingest raw data from **DB2, Oracle, and SQL Server** into **S3**, forming the foundation for downstream ETL processes and data pipelines.
- Processed diverse datasets, including transactional, operational, and structured/unstructured data, using **AWS Glue** to catalog raw data with **Crawlers**, cleanse it through custom scripts, and transform it into Parquet format for efficient storage and queried in S3.
- Managed a centralized **S3 Data Lake** for terabytes of data, enabling seamless **analytics and reporting** while ensuring data quality and scalability.
- Transformed and integrated cleansed data into **Amazon Redshift** using optimized dimensional models to support advanced analytics use cases, improving query performance by **20%** for business analytics.
- Automated schema creation, data validation, and transformation processes in **Glue**, ensuring pipeline governance and reducing manual intervention and improving processing times by **25%**.

### Associate Software Developer - Cognizant

Jan 2022 – Jul 2022

*Remote*

- Gained foundational experience in **database management**, Python scripting, and Git-based workflows.
- Practiced **Agile principles** and contributed to documentation, testing, and debugging of internal tools.

## PROJECTS

### Credit Card Classification | Python, Flask, PostgreSQL, XGBoost

- Developed and trained ML classifiers **Random Forest, KNN, Gaussian Naive Bayes, and XGBoost** models to classify credit scores, deployed best-performing XGBoost model via **Flask API** for real-time inference, improving **F1-score by 15%** over baseline.

### Full-Stack Student Survey Application | Angular, Spring Boot, REST API, MySQL

- Developed a CRUD-based web app with **Angular** frontend and **Spring Boot** backend, enabling prospective students to submit and manage survey data via **RESTful APIs**.
- Integrated **JPA/Hibernate** for data persistence and created dynamic survey listing, update, and delete functionalities with MySQL database.

## CERTIFICATIONS

### AWS Certified AI Practitioner (2025)

## EDUCATION

### George Mason University

Aug 2023 - May 2025

*Master of Science in Computer Science*