

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