Jyosna Suresh

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EDUCATION

Rochester Institute Of Technology | Masters of Science in Computer Science — **Aug 2023 - Dec 2025**

- Concentration: Object Oriented Programming with Java, Python , Distributed Systems, Parallel Computing Big Data , Cloud Computing, Data Structures and Algorithms, Artificial intelligence , Machine learning **GPA :** 3.89/4

PES University | Bachelors of Science in Computer Science — **Jun 2017 - Jul 2021**

- Concentration: Data Structures and Algorithms , Web development, Data Science, Operating System, Software Engineering, DBMS , Data Analytic, Machine Learning.

EXPERIENCE

Data Engineer Intern

Amazon.com | Bellevue, Washington — **Jun 2024 - Aug 2024**

- Enabled near real-time Advanced Refrigeration monitoring by designing a cross-account pipeline with AWS CDK, reducing data ingestion from hourly to every 5 minutes. Optimized query processing, reducing runtime from 30 to 3 minutes, and added a data quality layer in AWS Glue to flag issues directly to sites.
- Modularized data architecture by decoupling data extraction from the ML model, deploying CDK pipelines for cross-account replication, and improving system flexibility and maintenance.
- Built Electrification and Solar Telemetry databases for 26 Electrification sites and 50+ Solar Telemetry sites in the EU, optimizing queries in AWS Glue to reduce data retrieval time from 30 to 5 minutes.
- Developed a Building Management System (BMS) Science database by creating a cross-account pipeline to pull data from 400+ sites across NA and EU, leveraging **AWS DMS** and **DataSync**, and automating API data extraction with **Lambda** and **EventBridge** to ensure reliable data retention.
- Established secure RDS connections across accounts using private/public **subnets** and **NAT** gateways to enable data flow from relational databases to data lakes, ensuring seamless integration and reliable data access for further processing and analysis.

Associate Software Engineer

Accenture | Bangalore, India — **Jun 2021 - Jul 2023**

- Orchestrated daily data extraction of terabytes from diverse sources, including Oracle GoldenGate and Oracle Fusion.
- Engineered and deployed 5 interactive **Tableau** dashboards on a daily basis, driving a 80% boost in user engagement.
- Adapted **ETL** processes for seamless integration of new data elements and schema changes, resulting in a reduction of errors
- Employed **PL SQL** procedures for data cleansing and transformation, enhancing data quality .
- Constructed Azure-compatible data pipelines to ensure efficient ETL flow with 90% accuracy, facilitating the transition from on-premise systems to **Azure** Cloud infrastructure.

PROJECTS

Graph-Based Knowledge Network Application(React , Neo4j AuroDB , Tableau)

- Developed a full-stack application using **React** and **Neo4j AuraDB**, allowing users to add, view, and manage entity relationships in real time, with sub-100ms query times.
- Integrated Neo4j with React using neo4j-driver, securely storing and querying graph data with **Cypher** queries to retrieve and display complex relationships.
- Built dynamic graph visualizations in React, enabling seamless UI updates with real-time data, and integrated **Tableau** to generate visual analytics and interactive dashboards for deeper insights.
- Achieved real-time graph visualization and provided an intuitive interface for users to explore and interact with the graph network, ensuring a smooth and responsive experience.

RideShare Application: (Python, SQL, AWS, POSTMAN)

- Developed a highly available and fault-tolerant Database-as-a-Service (DBaaS) application, leveraging AWS microservices, enabling real-time analysis of user and rider data, resulting in data-driven decision-making and enhanced ride experience.
- Built robust database orchestration engine, seamlessly integrating with user-facing APIs and microservices. Orchestrator handled database read and write operations, resulting in improved system reliability and reduced latency by 50%.
- Architected and deployed a highly efficient messaging system using RabbitMQ as message broker, leveraging the Advanced-Message Queue- Protocol; improved message delivery speed by 50% and boosted system stability for seamless data exchange.

SKILLS

LANGUAGES: C, JAVA, BASH, PYTHON, TYPESCRIPT , JAVASCRIPT | **FrontEnd**: REACT, APACHE, PHP, HTML/CSS, XML, **NETWORKS**: TCP/IP, WIRESHARK ,VPC , Subnets, NAT gateway | **Databases** : ORACLE, POSTGRE SQL, AMAZON MYSQL,Redshift, MongoDB, RDS, Neo4J, DynamoDB |**Tools/Technologies/Cloud**: Git ,Unix,Docker, AIRFLOW ,Informatica Cloud, APACHE JMETER | **Visualization Tools**: TABLEAU , QUICKSIGHT | **Machine Learning** : SCIKIT-LEARN, NUMPY, PYTORCH, TENSORFLOW