SOWMYA RAGHAVENDRA

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WORK EXPERIENCE

Georgia State University **Atlanta, GA**
Graduate Research Assistant **January 2025 – May 2025**

- Designed and implemented efficient **data pipelines** to integrate health IT data (telehealth, AI) with county-level health indicators, optimizing the **data process** for actionable insights.
- Conducted **data analysis** and statistical modeling to uncover trends in healthcare services, directly informing product goals and business insights.

Georgia State University – Better Business Bureau **Atlanta, GA**
Graduate Research Assistant **August 2024 – December 2024**

- Architected a **machine learning model** that increased **business accreditation accuracy by 25%**.
- Performed **sentiment analysis** using **Natural Language Processing (NLP)** on company news articles, strengthening fraud detection capabilities.
- Led a team of **10+ researchers** to implement **data-driven accreditation processes**, streamlining operations and reducing manual verification by **40%**.

Mercedes Benz Research & Development India **Bangalore, India**
Software Consultant **August 2022 – August 2024**

- Developed and optimized **ETL pipelines** in **PySpark, and SQL** improving **data processing efficiency by 20%**.
- Engineered **real-time data streaming solutions** using **Apache Kafka**, enhancing system scalability and reducing data ingestion latency by **40%**.
- Designed **data models** for microservices and structured data storage to support both transactional processing and downstream analytics.
- Managed and deployed **containerized microservices** via **Kubernetes and Docker**, improving system reliability and uptime by **30%**.
- Automated **CI/CD pipelines on Azure DevOps**, reducing deployment time by **35%** and improving system maintainability.
- Led cross-functional collaboration with **product managers and analysts** to align data strategies with business goals.

PROJECTS

Walmart Logistics and Supply Chain Optimization | *Python, Machine Learning, Prophet, K-Means Clustering*

- **Forecasted demand** across regional warehouses using **Time Series Analysis (Prophet)**, reducing stockouts and excess inventory by **15%**.
- Applied **K-Means clustering** to optimize warehouse locations, reducing **transportation costs by 20%** and improving delivery efficiency.

Netflix Data Pipeline | *Azure, PySpark, Airflow, Delta Live Tables, SQL, Databricks*

- Built an end-to-end data pipeline using **Azure Data Factory** and **Databricks**, **reducing manual intervention by 80%.**
- Optimized data ingestion workflows with **validation checks**, **boosting query performance by 50%.**

SKILLS

Programming: Python, SQL (MySQL, PostgreSQL), PySpark, Java
Big Data & Analytics: Apache Spark, BigQuery, Databricks
ETL & Data Pipelines: Apache Airflow, Kafka, Data Factory, Blob Storage, Pipelines
Cloud & DevOps: Azure (Data Factory, Databricks, Redis Cache, Log Analytics), GCP
Visualization & Tools: Power BI, Looker Studio, Jupyter Notebook
Machine Learning & AI: Regression, Clustering, Decision Trees, Random Forest, Neural Networks
Version Control & Workflow: Git, Jira, CI/CD (Azure DevOps, Docker, Kubernetes)

EDUCATION

Georgia State University – J. Mack Robinson College of Business **Atlanta, GA**
Master of Science in Data Science and Analytics | *GPA: 4.0/4.0* August 2024 – December 2025
Coursework: Machine learning, Deep Learning, Statistics, Data Visualization, GenAI

Dayananda Sagar Academy of Technology & Management **Bangalore, India**
Bachelor of Engineering in Computer Science | *GPA: 3.87/4.0* July 2018 - July 2022
Coursework: Data Programming, Database Management systems, Big Data Analytics