Lakshmi Manaswini Muddana

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# PROFILE SUMMARY

Detail-oriented Data Analyst with 3+ years of experience delivering end-to-end analytics solutions across cloud and on-prem environments. Proficient in Python, SQL, R, and Spark for scripting, and experienced with AWS services including Redshift and S3.  
Strong foundation in statistical analysis, data governance, and Agile methodologies, with a focus on delivering actionable insights through BI tools like Tableau, Power BI, **SSRS**, and Excel. Proven ability to manage large structured and unstructured datasets across telecom and enterprise domains. Strong foundation in data engineering and software development principles, including OOP, data structures, algorithms, and scalable code practices in Python and Spark. Comfortable working in Agile/CI/CD environments and exploring machine learning and generative AI tools.

# EDUCATION DETAILS

### Florida Atlantic University, Florida United States Jan 2024 - Dec 2025

*Master's, Data science and Analytics*

* **GPA:** 3.7
* **Coursework:** Business Analysis, Project Management & Scheduling, Data science, Data Mining, Machine Learning, Deep Learning and neural networks

# PROFESSIONAL EXPERIENCE

### Telstra May 2022 - Jan 2024

*Data Analyst*

## Managed data migration and ETL pipeline development for telecommunications data, emphasizing data integrity and reliability for strategic analysis.

* Orchestrated end-to-end migration from Cloudera (leveraging Hadoop and Hive) to Azure, utilizing Azure Pipelines (CI/CD) to automate workflows and minimize manual errors.
* Designed and implemented ETL pipelines using Python, Spark, and SQL to transform raw and semi-structured telecom data.
* Followed Agile and CI/CD practices in collaboration with DevOps teams using GitHub and Azure Pipelines.
* Applied statistical methods and data validation checks to ensure compliance with governance standards.
* Participated in Agile sprints with data engineering and DevOps teams to incrementally improve data infrastructure..
* Utilized Databricks notebooks for advanced data processing, testing, schema validation, and quality checks, thereby enhancing data accuracy and reliability.
* Collaborated with data architects, QA engineers, and DevOps teams to enforce quality assurance practices, improve data governance, and optimize the Azure-based data ecosystem.

### MomentoCyberTech Apr 2021 - Mar 2022

*Data Analyst*

Optimized SQL, T-SQL, and PL/SQL queries to manage large-scale enterprise and financial data, while automating data extraction workflows using Python and SQL to reduce manual efforts by over 60%. Automated SQL and Python-based data workflows across relational and unstructured data sources, improving data freshness by 60%.

* Built visual dashboards in Tableau and Excel to monitor operational KPIs and uncover financial insights. Also developed ad hoc reports using **SSRS** for internal stakeholders.
* Automated SQL and Python-based data workflows across relational and unstructured data sources, improving data freshness by 60%.
* Collaborated with cross-functional teams to deliver scalable, data-driven solutions, participate in backend integration, and conduct data pipeline validation for improved system efficiency and accuracy.

### Internshala Jan 2020 - Dec 2020

*SDE Intern*

## SDE Intern contributing to a hospital management system full-stack web application development.

* Contributed to a full-stack web application for a hospital management system, streamlining patient registration, appointment sched- uling, and video-based consultations to modernize healthcare workflows.
* Developed modules for online appointment booking and remote doctor consultations, enhancing patient engagement, improving access for remote users, and supporting better health outcomes.
* Implemented a patient registration system for efficient data management, aiding personalized healthcare delivery, and focused on UI/UX enhancements to drive adoption by both hospital staff and patients.
* Supported efforts to ensure scalability and maintainability of the system, reducing the administrative burden and enabling healthcare providers to focus on core medical operations in a digital healthcare transformation context.

# ACADEMIC PROJECTS

### E-commerce Sales Performance Dashboard

* Extracted, cleaned, and aggregated transactional sales data from relational databases using advanced SQL queries involving joins, window functions (ROW\_NUMBER, RANK), and aggregation.
* Conducted data cleansing and enrichment with Python Pandas to handle missing values, outlier detection, and calculated metrics such as revenue per order, return rates, and customer lifetime value.
* Collaborated with sales and inventory teams to interpret insights, leading to targeted marketing campaigns and inventory optimization strategies that increased revenue by 12% and reduced stockouts by 20%.
* Performed exploratory data analysis (EDA) to identify seasonal patterns, sales trends, and regional discrepancies using Python visualization libraries and Tableau.
* Designed and developed an interactive Tableau dashboard featuring drill-down capabilities by region, time period, and product categories, enabling business users to monitor real-time KPIs and key sales drivers.
* Implemented performance optimizations on SQL queries and Tableau extracts to ensure dashboard responsiveness for large datasets.

### ETL Pipeline for Data Warehousing

* Designed and implemented an end-to-end ETL pipeline to extract raw JSON transaction data, apply complex transformations in Python, and load data into AWS Redshift using bulk COPY commands.
* Modeled the warehouse using dimensional modeling best practices (star schema) for optimized query performance, separating fact and dimension tables.
* Automated pipeline orchestration using Apache Airflow DAGs with comprehensive error handling, logging, and alerting.
* Employed dbt to implement data quality checks, schema tests, and documentation, ensuring data integrity throughout the pipeline.
* Reduced ETL runtime by optimizing Python scripts and Redshift queries, enabling daily data refreshes and timely analytics delivery.
* Collaborated with analytics teams to design efficient data models and report structures, improving query speeds by 40%.

# TECHNICAL SKILLS

* **Data Analysis Tools**: Excel, SQL, Access, Python (Pandas, NumPy), R
* **Data Visualization**: Tableau, Power BI, SSRS,Matplotlib, Seaborn
* **Database Management**: MySQL, PostgreSQL, Oracle, SSIS,Airflow
* **Machine Learning**: Basic understanding of supervised and unsupervised learning, regression analysis, classification algorithms, Scikit-learn, basic NLP with HuggingFace transformers, neural networks
* **Statistical Analysis**: Descriptive statistics, inferential statistics, hypothesis testing, Exploratory Data Analysis, Regression
* **Data Cleaning & Preprocessing**: Data wrangling techniques, handling missing data, normalization, transformation
* **Scripting Languages**: Python(OOP, modular coding), shell script, R ,Spark
* **Version Control**: Git, GitHub
* **Big Data Technologies**: Familiarity with tools such as Hadoop and Spark, Hive
* **Cloud Technologies**: AWS(Redshift, S3, EC2), Azure(Data Factory, Databricks), GCP
* **Software Development Lifecycle (SDLC)**: Agile, CI/CD, Data Quality, Validation, Governance, Apache Airflow

# TRAINING ATTENDED & CERTIFICATION

* **Azure Databricks**
* **Azure Fundamentals (AZ-900)**
* **Comprehensive Training in Web Development and Software Technologies at Cognizant**: Covered HTML, CSS, Bootstrap, SQL, T-SQL, PL/SQL, Java basics, and .NET techniques.
* **Aws Fundamentals**