MRUDULA TANNIRU

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EDUCATION

NORTHEASTERN UNIVERSITY   Boston, MA
Master of Science in Data Analytics Engineering   *May 2024*
Major in Machine Learning; Neural Networks and Deep learning ; Minors in Supply Chain Management

ACHARYA NAGARJUNA UNIVERSITY   Andhra Pradesh, India
Bachelors of Science in Statistics, Mathematics and Computer Science   *May 2019*

WORK EXPERIENCE

KGS TECHNOLOGY GROUP   Remote, USA
Sr. Business Intelligence Analyst   *Feb 2025 – Present*

- Developed interactive dashboards in Power BI and Tableau for portfolio analytics, driving real-time decision-making by stakeholders.
- Automated data cleaning and transformation using Python (Pandas) and SQL, reducing manual processing time by 40%.
- Built and optimized scalable ETL pipelines using Apache Spark, Airflow, and Azure Data Factory, processing millions of records daily across financial datasets.
- Integrated Azure Data Lake, Azure Synapse Analytics, and Azure Databricks to build secure, cloud-native data platforms supporting analytics and reporting.
- Developed Python-based scripts to automate data extraction and wrangling from Azure Blob Storage, SQL Database, and Synapse, reducing manual reporting time by 60%.
- Built reusable SQL queries and stored procedures to support high-performance analytics across large-scale structured data.
- Worked closely with cross-functional teams including business, IT, and data science to streamline analytics workflows using Azure DevOps for collaboration and CI/CD.
- Led a data cleaning initiative leveraging Azure Data Factory and Databricks, improving data quality by 95%, resulting in more accurate forecasting and insights.

STATE STREET CORPORATION   Boston, MA
Business Analyst   *Sep 2024-Feb 2025*

- Executed E2E and UAT testing for high-volume financial platforms supporting transactions exceeding $5B daily.
- Acted as a liaison between technical teams and business stakeholders, enabling the successful execution of 10+ cross-functional initiatives, improving alignment and reducing project delays by 30%.
- Designed and validated 85+ interface mappings achieving 100% integration accuracy and improving system reliability.
- Extracted and synthesized business/system requirements through collaboration with 40+ stakeholders, resolving 98% of issues within Service Level Agreement timelines for client transformation tools like IDW, DEH and ISVC.
- Monitored and optimized progress, reducing project delays by 60% and maintaining a 98% quality assurance success rate.
- Applied SWIFT standards to optimize 100+ financial messaging workflows, ensuring 100% compliance with industry regulations.
- Led Agile initiatives, like backlog refinement, story creation, and product owner responsibilities, to deliver value-driven outcomes.
- Delivered capital markets solutions for Equity, Fixed Income, Money Markets, Short Terms, Listed Derivatives, FX and Cash products.

INFOSYS LTD. (ADIDAS & REEBOK) *(China and Western Europe Markets)*   Hyderabad, India
Sr. Business Test Engineer   *Dec 2019 – Jul 2022*

- Performed end-to-end data validation and automation testing for retail clients using Python and SQL.
- Developed custom Python scripts to validate backend data against business requirements, saving over 25 hours per week.
- Created insightful Power BI dashboards to monitor KPIs and defect trends for cross-team reporting.
- Collaborated with developers, business analysts, and users to resolve data discrepancies and improve pipeline accuracy.
- Oversaw QA for SAP-integrated e-commerce systems managing 1,000+ transactions/minute across global platforms.
- Optimized system and API testing processes across SAP, RTL, and OMS, enhancing test stability by 60%.
- Engineered PL/SQL and Selenium automation scripts to extract, transform, and analyze data, boosting operational efficiency by 70%.
- Collaborated with global teams across different time zones, implemented validation processes to ensure accuracy, reliability & leveraging data-driven insights to streamline processes, achieving an outstanding 75% decrease in processing time.

- Detected and prevented 89% of recurring fraud instances through rigorous validation and real-time monitoring using JIRA.
- Accomplished an 89% reduction in fraud instances through innovative problem-solving and data-driven decision-making.
- Mentored and upskilled a QA team of 40+ engineers across geographies, increasing delivery efficiency by 50%.

INFOSYS LTD. (GAP, BANANA REPUBLIC, OLD NAVY) (*Western Europe Market)* Hyderabad, India
Test Engineer *Jun 2019 – Dec 2019*

- Extracted and analyzed large volumes of web data using Python (BeautifulSoup, Selenium), identifying user behavior trends for marketing strategy.
- Established internal reporting systems with SQL and Excel-based dashboarding.
- Maintained data integrity across marketing and sales datasets, revolving around 100+ data discrepancies monthly.
- Crucial part of migration to centralized data platform, resulting in improved user access and report accuracy.
- Executed structured test plans and authorized test cases covering 90%+ application functionality across major releases.
- Developed automation for smoke and regression suites,cutting regression test time from 5 hours to under 60 minutes.

INNOVATECH DATA LABS Guntur, India
Data Quality Analyst *April 2018 – Mar 2019*

- Developed end-to-end web scraping and data analysis pipelines using Python, gathering competitive intelligence for small business clients.
- Conducted exploratory data analysis (EDA) and statistical hypothesis testing to extract insights from customer reviews and market trends.
- Created custom reports and dashboards in Tableau to visualize user engagement metrics for clients in the e-commerce sector.
- Worked with JSON, CSV, and API-based data sources; applied data normalization techniques to support consistent reporting.

PROJECTS

REAL-TIME TRADE SURVEILLANCE SYSTEM *July 2025*
- Problem: Compliance team lacked real-time alerts for suspicious trading behavior.
- Tools: Kafka, Spark Streaming, AWS Lambda, S3, Redshift
- Actions: Built Spark-based streaming pipeline to process Kafka events and trigger alerts via AWS SNS.
- Results: Reduced detection time from 3 hours to under 2 minutes, enhancing regulatory compliance.

CUSTOMER 360 DATA PLATFORM FOR RETAIL *May 2025*
- Problem: Disparate systems prevented unified customer analytics.
- Tools: GCP BigQuery, dbt, Airflow, Looker
- Actions: Developed centralized data model in dbt and scheduled hourly refresh via Airflow.
- Results: Enabled marketing team to access real-time customer profiles, improving campaign ROI by 15%.

PHARMA SALES PERFORMANCE DASHBOARD *Feb 2025*
- Problem: Manual reporting delayed insights into regional sales performance.
- Tools: Python, PostgreSQL, Tableau
- Actions: Automated data extraction and transformation processes; built interactive dashboards in Tableau.
- Results: Reduced manual effort by 80% and delivered weekly reports in near real-time.

TECHNICAL SKILLS

Cloud & Infrastructure: Azure(Data Factory, Synapse, Blob Storage, Databricks), AWS(S3, Redshift, Glue, Athena), Terraform
Real-Time Data Streaming, Big Data Ecosystem: Apache Spark(PySpark), Apache Airflow, Kafka
Programming Languages: Python (Pandas, NumPy, Matplotlib, Seaborn), SQL (T-SQL, PL/SQL), NoSQL (MongoDB), Java
Data Warehousing, Lake Tech & ELT/ETL Automation: Snowflake, dbt, Azure Data Lake, Delta Lake
DevOps & CI/CD: Azure DevOps, Jenkins, Docker, Kubernetes
Visualization: Power BI(DAX, Power Query), Tableau (calculated fields, parameters, filters), Excel(Pivot Tables, Macros, VBA)
EDA & Statistical Modelling: Descriptive & Inferential Statistics, Time Series Forecasting, Regression (Linear, Logistic), Classification & Clustering (KNN, SVM, Random Forest, K-means), A/B Testing, Hypothesis Testing, Confidence Intervals
Business Analysis & Domain Knowledge: BRD/FRD documentation, GAP Analysis, SWOT Analysis, Stakeholder Communication & Requirements Gathering, Agile/Scrum & Kanban environments, JIRA, KPI Tracking, Financial Modeling, SupplyChain:Inventory Optimization, ProcurementAnalytics, SAP, LogisticsManagement, Financial, Retail, Healthcare/Pharma domain knowledge

CERTIFICATIONS

- AWS Fundamentals Specialization
- IBM-Business Intelligence Analyst Professional Certificate
- Coursera- Data Engineering on Google Cloud Platform Specialization
- Vanderbilt University –Gen AI SQL Database Specialist with ChatGPT