Rimi Mondal

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PROFESSIONAL SUMMARY

- **5+ years** of experience specializing in data and business analytics using **SQL**, **Power BI**, and other analytical tools.
- Worked with a **real-time Canadian client**, ADA Analytics, during postgraduation program to develop an interactive investment chatbot integrated with AI technologies. Key contributions included implementing **real-time stock data collection** via NewsAPI, integrating **TextBlob for sentiment analysis** using NLP techniques, and developing a dynamic mechanism for updating hot stocks based on live market data. This enabled users to receive timely insights for informed investment decisions in fluctuating financial markets.
- Proficient in **Exploratory Data Analysis (EDA)**, SQL, and **ETL** implementation using pandas and NumPy. Expertise in creating impactful dashboards and stories using Tableau and Power BI to derive insights and recommend solutions.
- Skilled Data Analyst with strong knowledge in SQL, **data processing**, **cleansing**, **de-identification**, and advanced Excel functionalities.
- Expert in **Data Visualization** including bar charts, cross tabs, tree maps, line charts, scatter plots, funnel charts and more in **Tableau** and Power BI.
- Experienced in **Data Modeling** and report generation using Power BI Pro features, workspaces, and security settings to create complex **dashboards** and KPIs.
- Advanced **Python** Proficiency for data analysis, automation, and integration within BI projects, leveraging libraries such as pandas, NumPy, and Matplotlib.
- SQL Expertise in data **extraction**, **manipulation**, and **optimization** for complex querying scenarios, ensuring efficient database structures.
- Comprehensive experience with ETL processes using **SSIS** and **Azure Data Factory** (ADF) to streamline data flow across systems and improve data processing accuracy.
- Cloud Platform Knowledge including **AWS** and Azure, with hands-on experience deploying BI solutions in cloud environments.
- Proficient in data analysis with extensive experience using **Microsoft Excel**, including Query, Pivot Tables, macros, connections to external data sources, and chart creation. Additionally skilled in using Power BI for Data Analysis Expressions (**DAX**) and SQL Server for **T-SQL** queries and complex **stored procedures**.
- Strong analytical skills in applying a wide range of statistical and quantitative techniques, including hypothesis testing, **regression analysis**, time series forecasting, **k-means clustering**, **data mining**, and **natural language processing** (NLP) to uncover trends, patterns, and actionable insights from complex datasets.
- Proficient in utilizing **RapidMiner** for advanced data preprocessing, predictive analytics, machine learning model development (such as **decision trees** and **random forests)** and deploying analytical workflows to extract actionable insights from diverse datasets.
- Effective **communicator** capable of translating complex analytical findings into actionable insights for non-technical stakeholders.
- Collaborative **team player** with a proven track record of working with cross-functional teams to gather requirements and deliver tailored BI solutions.
- Versatile in developing BI Interfaces including query tools, data visualization, **interactive dashboards**. Well versed in **ad-hoc reporting** queries using appropriate BI and reporting technologies.
- **Volunteered** as a Community Development Volunteer at Barrie Listening Post, applying data skills to real-world problem-solving. Consistently achieved **dean's list honors** for four consecutive semesters during postgraduation and demonstrated academic excellence.

WORK EXPERIENCE

Data Engineer   **Tata Consultancy Services Canada**

July 2024 – Present

- Led the end-to-end design, development, and deployment of scalable data solutions for a major Canadian bank, enabling efficient data ingestion, processing, and analytics in a highly regulated financial environment. This involved leveraging Azure Data Factory (ADF), Databricks, and Synapse Analytics to handle large, complex datasets with stringent compliance requirements.

- Developed and maintained complex ETL pipelines to seamlessly integrate data from core banking systems, CRM platforms, and external financial APIs, ensuring accurate and real-time insights for decision-making. Automated data workflows, reducing processing time by 30% and enabling real-time analytics.

- Implemented predictive analytics and machine learning models using Python, SQL, and Azure Machine. Learning to enhance fraud detection, customer segmentation, and credit risk analysis. These models provided accurate forecasts and actionable insights, supporting strategic initiatives.

- Built and optimized interactive Power BI dashboards with drill-down capabilities, delivering actionable insights to executives and business units. Designed custom DAX measures and data models to track KPIs, loan performance, customer behavior, and regulatory compliance.

- Collaborated with business stakeholders and cross-functional teams to gather requirements, design data architectures, and develop tailored solutions. Translated business needs into technical specifications, enabling seamless communication between technical and non-technical teams.

- Led the optimization of SQL scripts, stored procedures, and database queries to streamline data retrieval and processing. Improved query performance by 40% through indexing strategies, partitioning, and execution plan analysis.

- Orchestrated large-scale data migration projects to modernize legacy systems, ensuring data integrity and minimal downtime. Utilized SSIS and ADF for seamless migration to cloud platforms.

- Mentored junior data engineers and analysts, providing hands-on guidance in data engineering best practices, cloud technologies, and advanced analytics. Fostered a collaborative environment focused on continuous learning and knowledge sharing.

                                                                                                                              E2 Solutions

Junior Data Analyst

April 2021 – November 2022

- Conducted analytics projects using tools like Power BI, SQL, and Excel across multiple business functions including marketing and operations, aligning with the company's vision to enhance client productivity and profitability.

- Built and managed a robust data ecosystem with Azure Data Factory and Data Bricks for seamless data ingestion, storage, processing, and analysis of structured and unstructured datasets. Ingested data from various sources in real-time and batch modes, ensuring data accessibility and reliability.

- Implemented data pipelines in Azure Data Factory (ADF V2) to incrementally transfer data from various sources to destinations, enhancing data accessibility and reliability for fault-tolerant data management and distribution. Leveraged Azure Data Lake, ensuring high availability and scalability of data resources.

- Created computed tables in Power BI using DAX for comprehensive data analysis and visualization. Developed complex T-SQL programs, including stored procedures, triggers, and optimized queries, ensuring efficient data manipulation and retrieval.

- Conducted Exploratory Data Analysis (EDA) using python in Jupyter Notebook and provided insights to optimize business processes for clients in healthcare, banking, manufacturing, travel, retail, energy, financial, and government sectors.

- Developed reports for executives by leveraging Power BI for visualization, SQL for database querying, and Excel for data manipulation, contributing to informed decision-making processes.

- Produced and disseminated scheduled and ad-hoc reports, providing stakeholders with actionable insights. Collaborated with clients and data partners to align data solutions with organizational objectives.

- Executed data profiling and cleansing activities to promote data integrity and reliability. Streamlined data management processes by developing reusable tasks, sessions, and workflows.

- Developed SQL stored procedures for data validation and functional checks and enhanced data quality.

- Ensured data integrity during extraction, manipulation, and processing through meticulous data cleaning and backup procedures.

- Managed end-to-end ETL (Extract, transform, and load) processes, leveraging SSIS and Azure Data Factory to extract data from diverse sources, transform it into meaningful insights using Python and SQL transformations, and load it into a centralized data warehouse.

- Translated user stories into technical requirements, collaborating with clients to create analytics solutions using Agile methodologies. Documented complex business and system processes using Visio for process mapping and Confluence for documentation.

- Analyzed large datasets using regression analysis, clustering, and time series analysis to uncover trends and provide actionable insights. Collaborated with functional experts on technology projects, developing metrics and KPIs using Tableau and Power BI.

- Monitored and resolved data quality issues using SQL queries and data profiling tools, providing continuous improvement recommendations.

- Conducted ad-hoc analysis using Python and visualization libraries like Matplotlib and Seaborn, delivering insights to drive client business productivity and provided regular reporting to stakeholders using tools like SSRS, ensuring effective and maintainable business solutions.

Data Researcher I (GIS Analyst)   **E2 Solutions**

July 2019 – March 2021

- Managed corporate infrastructure asset data, ensuring data accuracy and integrity using tools like Tableau, Power BI, Excel, and ESRI GIS software.

- Utilized Power BI, for data prototyping and report visualization. Published Power BI reports and dashboards for web clients and mobile apps, making them widely accessible.

- Demonstrated strong understanding of various data formats, including CSV, XML, JSON, PARQUET, etc. and expertise in data transformation and translation, leveraging appropriate tools for effective data handling.

- Created and modified database objects such as tables, stored procedures, views, indexes, and user-defined functions; optimized SQL queries by studying execution plans. Investigated and resolved issues

related to failed jobs, ensuring data processing continuity.

- Conducted periodic sessions with end-users to identify process or system improvements, data needs for reporting, problem resolution, and other IT-related activities.
- Provided comprehensive analysis and recommended solutions to complex business problems using internal and external data by applying advanced analytical methods to assess factors impacting growth and profitability.
- Implemented data standards and managed database using SQL by conducting data assessments and gap analysis to improve data integrity and data quality.
- Developed data frameworks to support decision-making and regulatory reporting, leveraging relational database management systems like MS SQL Server, PostgreSQL, and GIS databases.
- Facilitated meetings with departments to understand data needs and provided guidance and recommendations on using data modeling techniques and predictive analytics.
- Maintained corporate data content by leveraging programming languages and scripting languages such as Python, C#, and SQL.
- Performed data analysis and visualization to support business strategies, using tools like Jupyter Notebooks for interactive data analysis, pandas library for data manipulation and analysis, Matplotlib for creating visualizations, and GIS tools for spatial analysis and mapping.

TECHNICAL SKILLS

Database Management: Database Management Systems (DBMS), SQL, NoSQL

Data Analysis & Mining: Data Structures, Qualitative Data Analysis, Data Algorithms, Data Collection, Data Mining, Social Media Mining, Sentiment Analysis, Data Analysis, Predictive Analytics, Anomaly Detection, Web Scraping, SSIS, OLAP

Data Visualization: Tableau, Microsoft Power BI, ArcGIS, Plotly, Cognos Analytics, SSRS

Cloud Computing & Big Data: Cloud Computing, Amazon Web Services (AWS), AWS SageMaker, Microsoft Azure, Hadoop, SAS (Software), Snowflake

Programming & Software Tools: Python, C#, Jupyter, Visual Studio, AutoCAD, Visual Paradigm, Microsoft Office Suite (Excel, Word, PowerPoint), Software Development Life Cycle (SDLC), Power Query, Data Analysis Expressions (DAX), SSIS

Machine Learning & AI: Applied Machine Learning, Machine Learning Algorithms, Reinforcement Learning (Q-learning, SARSA, DDPG), Neural Networks (CNN, RNN, DNN), Automated Machine Learning (AutoML), AI Ethics, Artificial Intelligence (AI), Artificial Intelligence for Business, Chatbot Development, Computer Vision, Natural Language Processing (NLP), Emerging Technologies, AI Robotics and Automation

Business & Strategy: Business Intelligence (BI), Forecasting, Data Architecture, Data Manipulation, Business Process, Project Management, Research Skills, Business Process Modeling and Notation (BPMN)

Statistical Analysis: Statistics, Logistic Regression, Linear Regression, Chi-square, Decision Trees, Random Forest, XGBoost

KEY SKILLS

Teamwork, Leadership, Team Management, Public Speaking, Creative Thinking, Critical Thinking, Accountability, Adaptability, Fast Learner, Determined, Enthusiastic, Data-driven, Communication, Collaboration, Research Skills, Presentation Skills, Strategic Thinking, Easily Adaptable, Project Management, Report Writing, Problem-Solving, Patience and Empathy, Stakeholder Management, Attention to Detail, Cross-Cultural Communication, Planning

PROJECTS

Labour Force Analytics by Immigration Status   **Georgian College**

January 2023 – August 2023

- Developed the Labour Force Analytics by Immigration Status dashboard for a Canadian client, using the Labour Force Characteristics by Immigrant Status dataset from Statistics Canada. This interactive dashboard provides detailed insights into immigrant labour market dynamics, including three-month moving average forecasts. The project involved data cleaning, development of interactive features for customizable data views, integration of visualization tools, and deployment on a web-based platform.

Investment Insights Chatbot with Real-Time Analysis   **Georgian College**

September 2023 – April 2024

- Developed an AI-Powered Investment Insights Chatbot for a Canadian client, providing users with real-time stock market analysis and personalized investment advice. The chatbot featured dynamic stock updates, integration of real-time market data, sentiment analysis, and algorithms for identifying trending stocks. Focused on creating a user-friendly interface, optimizing system scalability and efficiency, and ensuring accurate and timely financial insights to empower informed investment decisions.

VOLUNTEER

Community Development Volunteer   **Barrie, ON**

Barrie Listening Post   *March 2023 – December 2023*

- Actively listened to senior citizens, homeless individuals, and people experiencing anxiety and stress in diverse community settings, fostering trust and maintaining confidentiality. Collected and organized qualitative data to identify common themes and insights, analyzed patterns in emotional and mental health concerns, and collaborated with community organizations to develop targeted interventions, enhancing community support programs.

EDUCATION

Artificial Intelligence - Architecture, Design, and   **Barrie, ON**
Implementation – 90.97%   *April 2024*
Georgian College

Big Data Analytics – 88.7%   **Barrie, ON**
Georgian College   *August 2023*

CERTIFICATIONS

Introduction to Cognos Analytics	*February 2025*
AWS Academy Machine Learning Foundations	*April 2024*
AWS Academy Cloud Foundations	*April 2024*
Applied Analytics Using SAS Enterprise Miner	*August 2023*
Microsoft SQL Server 2019 Essential Training	*July 2023*
AWS Academy Data Engineering	*July 2023*
SAS Certified Big Data Professional Using SAS 9	*February 2023*