Pratham Sharma

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WORK EXPERIENCE

Trillium Health Partners   Mississauga, ON
Data Scientist   Sep 2023 - Present

- Architected and implemented an **end-to-end ML pipeline** to ingest data via **SQL Server**, generate forecasts using forecasting models, and communicate results to operational teams using **Power BI and SSRS** reports
- Implemented **SARIMAX and Dynamic Regression-based forecasting models** to predict daily ED visits with **4% MAPE**, helping operational teams allocate nursing staff based on predicted surges in patient volume
- **Drove a 12% reduction in ED wait times** (from 4.2 hours to 3.7 hours) by integrating forecasting models into existing operational processes for nursing staff allocation
- Designed an interactive **What-if analysis dashboard** integrating multiple predictive models, enabling leadership to simulate performance outcomes under varying operational conditions
- Led the development of **7 Power BI dashboards** used by 50+ stakeholders across multiple departments, showcasing trends in KPIs and providing insight into hospital operations and performance
- Extracted, transformed, and combined data from 6 data sources using **Microsoft SQL Server** to create comprehensive datasets for KPI analysis
- **Boosted data model efficiency by 30%** by utilizing the **snowflake schema** to develop advanced data models supporting the development of interactive dashboards

Data Analytics Co-op   May 2023 - Aug 2023

- Created a comprehensive **Power BI dashboard** to track organizational performance across 63 KPIs
- **Improved data quality by 38%** by implementing automated data quality and integrity checks using Python, leading to accurate dashboard reporting
- Maintained technical documentation for 5 data models and dashboards, and over 50 KPI definitions and calculations, ensuring consistency across dashboards and reports

RedCarpetUp.com   New Delhi, India
Data Analyst Intern   Jan 2022 - Jun 2022

- Developed and optimized **5+ ETL pipelines using Apache Airflow** to make high quality data available for A/B testing, as well as to automate standard reporting requests and other tasks
- **Reduced the time taken to detect fraudulent activity by 56%** (from 2.5 hours to 1 hour) by implementing statistical algorithms to identify anomalies in financial transactions
- Utilized **PostgreSQL** to extract data for the creation of interactive dashboards using **Apache Superset**, conveying actionable insights

TOP SKILLS

Data Science Tech Stack: Python, R, SQL (PostgreSQL, Microsoft SQL Server), Power BI, Microsoft Azure
Frameworks & Libraries: Pandas, NumPy, Scikit-Learn, Matplotlib, Seaborn, TensorFlow, OpenCV, MLflow
Techniques & Concepts: Machine Learning, Time Series Analysis, Statistical Analysis and Modeling, Hypothesis Testing, Data Warehousing, Data Pipelines, Natural Language Processing, Computer Vision
Other Tools: Git, Microsoft Fabric, Tableau, Azure Machine Learning, Azure Data Lake, Apache Airflow

CERTIFICATIONS

Azure Data Scientist Associate, Microsoft - [View certification](#)
Fabric Analytics Engineer Associate, Microsoft - [View certification](#)
Tableau Desktop Specialist - [View certification](#)

EDUCATION

University of Western Ontario   London, ON
Master of Data Analytics | GPA:3.95

- **Honours & Awards:** Recipient of the Environics Analytics Master of Data Analytics Scholarship

Vellore Institute of Technology   Vellore, TN, India
Bachelor of Technology, Computer Science & Engineering | GPA: 3.86