# Pratham Sharma

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#### WORK EXPERIENCE

# Trillium Health Partners Mississauga, ON

Data Scientist

Sep 2023 - Present

- Developed forecasting models using advanced time series and regression algorithms to accurately forecast daily visits to the ED, achieving **96% forecasting accuracy**
- Collaborated with cross-functional teams to integrate forecasting tools into existing processes, leading to improved resource planning and a 28% reduction in under-staffing during periods of high ED visits
- Deployed an **Azure Automation Runbook** to generate weekly forecasts from the forecasting models and effectively communicate results to clinical teams for streamlined decision-making
- Led the development of **6 Power BI dashboards** for cross-functional teams, showcasing trends in KPIs and conveying key insights to stakeholders
- Extracted, transformed, and combined data from 6 data sources using **Microsoft SQL Server** to create comprehensive datasets for KPI analysis
- Utilized the **snowflake schema** to develop advanced data models supporting the development of interactive dashboards, resulting in a **30% improvement in data model efficiency**

Data Analytics Co-op May 2023 - Aug 2023

- Created a comprehensive **Power BI dashboard** to track organizational performance across 63 KPIs
- Programmed automated data quality and integrity checks using Python, leading to a **38% improvement in data quality** and 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 **7 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
- Implemented statistical algorithms to identify anomalies in financial transactions, resulting in a significant 56% decrease in the time taken to detect fraudulent activity
- Utilized **PostgreSQL** to extract data for the creation of interactive dashboards using Apache Superset, conveying actionable insights

## TOP SKILLS

Programming Languages: Python, PySpark, R

Databases: PostgreSQL, Microsoft SQL Server, SparkSQL, MySQL, MongoDB

Data Science Skills: Machine Learning, Natural Language Processing, Computer Vision, Statistical Modeling,

Hypothesis Testing, Data Visualization, Pandas, NumyPy, Scikit-Learn, TensorFlow, OpenCV

Tools & Technologies: Microsoft Power BI, Microsoft Fabric, Microsoft Azure, Apache Airflow, Git, Microsoft Office

## **EDUCATION**

# **University of Western Ontario**

London, ON

Master of Data Analytics — GPA:3.95

## **Vellore Institute of Technology**

Vellore, TN, India

Bachelor of Technology, Computer Science & Engineering — GPA: 3.86

#### **PROJECTS**

#### Hurricane Damage Prediction using CNNs - GitHub

Apr 2023

A deep learning model to identify areas damaged by hurricanes

- Formulated an **image processing** algorithm to pre-process images using Canny edge detection, erosion, and Gaussian blur techniques
- Implemented a custom CNN model specifically designed for identifying images displaying hurricane damage, achieving a 93% accuracy on the test set
- Achieved a **25**% **reduction in model complexity** as compared to the pre-trained VGG-16 model, while achieving comparable accuracy for the same task