

# PRADHYUMNA RAO

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**Data Science graduate** proficient in Python, Machine Learning and Model Training. Experience in collaborating with International organizations and global clients. Seeking full time Data Science opportunities.

## Education

**University of Rochester, Masters in Data Science**

**Aug 2022 - Dec 2023**

*Coursework: Time Series Analysis, Statistics, Machine Learning :: Recieved 40% merit scholarship*

*Rochester, NY*

**Simon Business School, Business Analytics**

**Jan 2023 - May 2023**

*Coursework: Pricing Analytics ; Teacher Assistant: Predictive Analytics*

*Rochester, NY*

**SRM University, B.Tech.- Computer Science**

**2018-2022**

*Specialization in Data Science & Artificial Intelligence (association with IBM)*

*Delhi-NCR, India*

## Experience

**UNITED NATIONS HQ, Department of Operational Support**

**June 2023 - Aug 2023**

*Data Analyst - Finance & Budget — SQL, PowerBI, Exploratory Data Analysis*

*New York City*

- Utilized Data analytics methodologies, PowerBI to dissect business metrics, isolate KPIs, integrate them in dashboards
- Demonstrated comprehensive understanding of complex UN Mission data, initiating cross-functional collaboration with UN member states and stakeholders aiming **5% reduction** and standardization of the Troop Requirement Budget
- Analyzed Reimbursement Policies for **Troop/Police Contributors**, comparing budgets across countries using the UN UCM Cloud Data platform and SQL Server to manage and analyze large scale datasets effectively

**CITI BIKE RENTAL Inventory, [Github Link](#)**

**Jan 2023 - May 2023**

*Data Science Engineer, Univeristy of Rochester — MLflow, Databricks, Python, Spark, ETL*

*Rochester, NY*

- Developed end-to-end bike sharing system, **focusing at Data Pipelines**, real-time streaming and historic data
- Optimized FB prophet **Time-Series Forecasting Model** for **hourly** bike change predictions using **MLFlow**
- Built Real-time monitoring app to stage models for production, integrating git and MLFlow for model tracking registry

**POWERGRID CORPORATION, India Limited**

**July 2021 - June 2022**

*Data Analyst and Business Management — CRM, SQL, Alteryx*

*Gurgaon, India*

- Leveraged **Zoho Analytics** to streamline cross-functional collaboration, optimizing interdepartmental operations
- Utilized **Alteryx** for precise segmentation of hospital data, optimizing area allocation to empanelled medical hospitals
- Developed healthcare application, resulting in **50% increase** in utilization and **30-minute reduction** in search time

## Skills

**Languages & Database Systems:** Python, R, SQL, Snowflake, Amazon Redshift

**Technology Stack:** MLflow, Databricks, MLOps, Apache Spark, PyTorch, Tensorflow, Docker

**Statistics/Quantitative:** EDA, ETL, Pycaret, A/B Testing, Hypothesis Testing, Causal Analytics

**Software:** Microsoft Powerpoint, Excel, Power BI, Zoho CRM, Alteryx, STATA

## Projects and Research

**Ohio County COVID-19 Impact: Predicting the Pandemic**

**March 2023**

*Machine Learning Project — Pycaret, EDA, Random Forest, ExtraTreesRegressor, GridSearchCV*

- Developed a predictive model for Covid-19 cases in Ohio County using PyCaret ML library, Hyperparameter Tuning.
- Trained the model with XGBoost and ExtraTreesRegressor algorithms to achieve a high **R-squared value of 97%**.

**Optimizing Pricing & Investment Strategy for Soft Drink Industry**

**Feb 2023**

*Pricing Analyst Project — R, ggplot2, Causal Analytics, logit, Regression, Clustering*

- Used choice data to estimate multinomial logit model, revealing consumer inclinations and price sensitivity for product
- Segmented consumers with K-means clustering based on demographics for tailored pricing of leading drink Prototype

**Data-Driven Marketing: Statistical Optimization, [Project Link](#)**

**Jan 2023**

*Economical and Statistical Project — R, ggplot2, NLTK, Tableau, Hypothesis Testing*

- Utilized advanced statistical tools like t-tests, chi-square tests, and ANOVA for insights in company spending
- Employed NLTK, Tableau visualization to identify potential target consumers, demonstrating Quantitative analysis

**Social Media Analytics to Drive Customer Acquisition, [Project Link](#)**

**Dec 2022**

*Data Science Project — Python, NLTK, Clustering*

- Developed a customer affinity model by analyzing market data and US demographics through social media analytics.
- Conducted a comparative analysis of market trends and classified customers using clustering & customer segmentation

**Cryptocurrency Market Prediction Using Sentiment Analysis, [Publication Link](#)**

**2022**

*Data Science - Research Assistant*

- Managed a unique SETP (Sentiment Evaluation for Trend Prediction) model **Reporting success of 80%** to predict.
- Extracted Twitter sentiment trends to improve quality of trend analysis, Financial investments in the crypto market.