

PRATHEEK K M

SKILLS

- **Programming & Analytics:** Python (Pandas, NumPy, SciPy, Matplotlib), R, SQL (SQL Server, MySQL), Java (OOPS), HTML, Python (Pandas, NumPy, SciPy, Matplotlib)
- **Visualization and BI Tools :** Microsoft Power BI ,Excel (Conditional Formatting , Pivot Tables)
- **Machine Learning and AI :** Neural Networks , Deep Learning , Time-Series Analysis for Business , Machine Learning techniques ,Scikit-learn ,TensorFlow, PyTorch
- **Cloud and Big Data Technologies :** Snowflake , Microsoft Azure, Spark, Databricks, Apache Spark, AWS Lambda , AWS API Gateway, AWS Bedrock ,Apache Spark, Hadoop
- **ETL and Data Pipelines :** Building and managing ETL pipelines for data integration and processing
- **Data Analysis and Processing :** Google data analytics, Excel proficiency , Data cleaning , Exploratory data analysis mathematical modeling
- **Soft Skills :** Strong communication , Team collaboration, Problem solving

PROJECTS

SPORTS DATA ANALYSIS – DISSERTATION PROJECT - LONDON ,UNITED KINGDOM

September 2024

- Implemented Python to analyze data using **machine learning algorithms**, including **XGBoost, Linear Regression, Gradient Boosting, Decision Trees**, and **Random Forest**.
- Achieved **92% accuracy** in predicting IPL match scores through model optimization.
- Built a **Flask web application** enabling users to predict match scores by selecting IPL teams, enhancing user engagement and interactivity.
- Aggregated and visualized data with **Pandas, Matplotlib**, and **NumPy** to compile a comprehensive report for stakeholders.

E COMMERCE SALES DASHBOARD

August 2024

- Created a **Power BI** dashboard highlighting KPIs such as profit by subcategory, sales by category, and payment method trends.
- Processed and validated client data in **Excel**, ensuring completeness and reliability.
- Provided actionable insights, such as optimizing inventory and improving sales strategies, resulting in a projected 15% increase in profitability.
- Consulted with stakeholders to determine key metrics for strategic decision-making.

TIME SERIES ANALYSIS FOR BUSINESS – Personal Project – London , United Kingdom

May 2024

- Forecasted electricity demand using **R Studio**, achieving a **Mean Absolute Percentage Error (MAPE)** of less than 5%.
- Cleaned and analyzed large time-series datasets to identify trends and seasonality.
- Developed statistical models, including **ARIMA** and **SARIMA** for demand forecasting and resource optimization.

TRAINING A NETWORK FOR MNIST – Personal Project – London, United Kingdom

- Implemented **CNN** as a particular kind of artificial neural network that are used for tasks related to image classification , such as object detection and picture segmentation
- It will make **machine learning** accessible to both novices and experts alike by offering a thorough synopsis of the theoretical ideas and implementation techniques
- With a fantastic validation accuracy of **97.73%** the model proved its capacity to acquire useful characteristics and carry out precise categorization

INTELLIGENT VIDEO SURVEILLANCE CAMERA – Main Project

- Designed a system integrating **Open Pose** for fall detection, **R-CNN** for crash detection, and **Haar Cascade** for face recognition.
- Enhanced real-time anomaly detection with **Python**, reducing false positives by 20%.
- Built a user-friendly **GUI** using **Tkinter** to improve accessibility and functionality for diverse use cases.

HEART DISEASE PREDICTION USING MACHINE LEARNING ALGORITHMS – Hobby project

- Conducted a comparative analysis of **classifiers**, including **Decision Tree**, **Logistic Regression**, and **Random Forest**.
- Developed a hybrid ensemble model (**AdaBoost + XGBoost**), improving prediction accuracy to **94%**.
- Evaluated model performance using **confusion** and **correlation matrices** for actionable insights in **healthcare analytics**.

BANK MANAGEMENT SYSTEM [ATM SIMULATION] – Hobby project

- Designed and implemented a **Bank Account Management System** using **Java**, enabling efficient and automated banking processes for users and administrators.
- Developed an **interactive content management system** to facilitate tasks such as **data entry, validation, confirmation, and updates**, improving operational efficiency
- Conducted **system requirement analysis and specification** to ensure alignment with customer needs, compliance requirements, and project constraints like budget and schedule.
- Enhanced system functionalities beyond conventional banking applications, reducing transaction times and improving overall user experience.

INTERNSHIP

REINSURANCE ANALYST CO-OP – MS Solutions Pvt Ltd – London, United Kingdom

May 2024- Nov 2024

- Reconciled and logged premium reinsurance rates for four major accounts, ensuring 100% accuracy across multiple systems.
- Developed an **Excel VBA**-enabled reporting system, reducing processing time by 50% and enhancing **data accuracy**.
- Conducted detailed analyses of domestic and international reinsurance agreements, ensuring compliance with industry standards.
- Collaborated with cross-functional teams to streamline operations, increasing efficiency by 30%.
- Interacted regularly with external stakeholders to resolve discrepancies and ensure seamless contract renewals.

EDUCATION

MASTER OF SCIENCE IN DATA ANALYTICS – Queen Mary University of London – London, United Kingdom

Sept 2024

Majors: Machine Learning, Financial Data Analytics, Programming with Python, T-series for Business Analysis

BACHELOR OF COMPUTER SCIENCE - SRI SIDDHARTHA INSTITUTE OF TECHNOLOGY – TUMKUR , INDIA

July 2019

Majors : JAVA(OOPS), Data Base Management System , Computer Networks , Operating Systems

ADDITIONAL HIGHLIGHTS

- Achieved a GRE score of **326/340** and a TOEFL score of **105/120**, reflecting strong **verbal** and **analytical** skills.
- Motivated about leveraging data to solve **complex problems** and **drive business success**.
- Proficient in building **predictive models**, **creating interactive dashboards**, and **collaborating** with stakeholders for impactful results.