# Nathan Ravichandran

## **Profile**

Detail-oriented and analytical Data Science student passionate about uncovering insights from data. Proficient in Python, machine learning, and data visualization, with hands-on experience building predictive models and performing in-depth exploratory data analysis. Eager to apply a strong foundation in statistical analysis and data mining to solve complex business problems in a challenging Data Analyst role.

## **Education**

#### **MSc in Data Science and Analytics**

2025 – Present

University of Westminster, London B.Tech in Computer Science and Engineering

2020 - 2024

Hindustan Institute of Technology & Science, Chennai

#### **Technical Skills**

- Programming Languages: Python
- · Data Analysis Libraries: Pandas, NumPy, Seaborn, Matplotlib
- Machine Learning: Scikit-learn (Logistic Regression, KNN, Naive Bayes, Decision Trees)
- Text Analytics: NLTK, VADER Sentiment, Gensim (LDA Topic Modeling), PRAW
- Business Intelligence: Palisade DecisionTools (@Risk, PrecisionTree), Excel Solver
- Databases & Tools: Basic SQL, Jupyter Notebook, WordCloud

## **Projects**

### **Predictive Modeling for Breast Cancer Prognosis**

Data Mining Machine Learning

- Developed classification models (Logistic Regression, KNN) to predict patient mortality, achieving 90% accuracy with a SEER dataset.
- Engineered features, handled missing values, and built a Decision Tree model to forecast patient survival months, providing data-driven clinical insights.

## Web and Social Media Analytics

Sentiment Analysis Topic Modeling

- Extracted and analyzed over 100 posts and comments from Reddit (r/LoganPaul) using Python's PRAW API.
- Performed VADER sentiment analysis and LDA topic modeling to identify community trends and key discussion themes, presenting findings with word clouds.

#### **UK Road Accident Analysis**

Data Visualization Dashboarding

- Analyzed over 500,000 UK road accident records using Pandas to investigate how weather and time of day influence accident severity.
- Created heatmaps and charts to visualize key patterns, such as accident frequency hotspots during commute hours.

#### **Additional Information**

- Work Eligibility: Eligible to work in the UK.
- Languages: English (Fluent), Tamil (Native).
- **Availability:** Full-time, flexible for evenings and weekends.