**Ayush Pradhan**

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[github.com/ayushpradhan-dev/Data-Science-and-Analysis-Projects](https://github.com/ayushpradhan-dev/Data-Science-and-Analysis-Projects)

**Personal Profile**

A highly motivated data professional with a strong foundation in **data science, analytics, and financial modelling**. Combining **economics, statistical analysis, and machine learning**, I develop data-driven models to generate insights and inform decision-making. I have hands-on experience in **data visualization, predictive modelling, and business intelligence tools**, enabling me to bridge the gap between **technical implementation and strategic business applications**. Eager to apply my analytical skills in **data science, consulting, or finance-related roles**, where I can contribute to solving complex challenges and driving informed decision-making.

**Education**

**King’s College London**

September 2024 – Present – Currently Enrolled

* Degree: MSc Data Science
* Modules: Statistics for Data Analysis | Computer Programming for Data Scientists | Machine Learning | Pattern Recognition, Neural Networks and Deep Learning | Databases, data warehousing and information retrieval | Big Data Technologies | Data Visualization

**Royal Holloway, University of London**

September 2019 – July 2022

* Degree: BSc Financial and Business Economics

Grade: First Class Honours

* Key Modules:

Quantitative Methods | Microeconomics | Macroeconomics | Corporate Finance | Financial Markets and Institutions | Financial Economics | Industrial Economics | Industrial Growth and Competition

**Technical Skills**

* **Programming & Data Analysis:** Python (Pandas, NumPy, scikit-learn, Matplotlib, Tensor Flow), R (tidyverse, ggplot2, regressions), SQL (advanced queries, normalization, data manipulation), and Git version control.
* **Data Management:** Relational databases (MySQL), data cleaning, data warehousing, NoSQL (MongoDB).
* **Data Visualization:** Familiar with Tableau, experienced in R ggplot2, Matplotlib, and dashboard development for data storytelling.
* **Statistical Analysis:** Exploratory data analysis (EDA), hypothesis testing, linear & logistic regression, Time-Series Analysis, Predictive Modeling.
* **Consulting & Communication:** Strong ability to translate complex data into actionable insights for both technical and non-technical audiences.
* **Business & Economics:** Economic modeling, financial data analysis, and market trend forecasting.

**Projects / Applied Coursework**

* **COVID-19 Data Analysis & Visualization:** Queried a public API, processed real-time data into structured Pandas DataFrames, and performed time-series analysis. Created rolling averages, aggregated statistics, and visualizations to identify pandemic trends.
* **Natural Language Processing (NLP) on Wikipedia Data:** Scraped Wikipedia text using WikiData APIs, performed text preprocessing (tokenization, stemming, lemmatization), and extracted bigrams & trigrams. Visualized word distributions with Matplotlib.
* **Handwritten Digit Classification Using Convolutional Neural Networks:** Built a Convolutional Neural Network (CNN) using TensorFlow/Keras for handwritten digit recognition (MNIST dataset). Optimized hyperparameters, dropout layers, and batch normalization to enhance accuracy.
* **Retail Sales Analysis & Predictive Modeling:** Assessed the impact of a new store layout on sales using EDA (histograms, scatter plots, boxplots) and multiple linear regression in R, controlling for store type and staff turnover. Validated model assumptions with residual analysis, variance inflation factor, and Durbin-Watson test.

**Certifications**

**Google Data Analytics Professional Certificate**

Oct 2023 – Jan 2024

* Gained hands-on experience in data aggregation, cleaning, and organization with SQL and R to identify trends and relationships within data to gain meaningful insights.
* Fluency with data visualization tools in tableau and R using the ggplot2 package to communicate findings.

**The Data Science Course: Complete Data Science Bootcamp, Udemy**

March 2024 – May 2024

* Applied K-means clustering for marketsegmentation and data standardization.
* Studied Bayesian inference, probability distributions, combinatorics, and both descriptive and inferential statistical methods.

**Professional Attributes**

* **Problem-Solving:** Strong analytical thinker, adept at breaking downcomplex data challenges into actionable solutions.
* **Strong communicator:** Ability to translate complex datasets into actionable insights for non-technical audiences.
* **Adaptability & Continuous Learning:** Passionate data analytics and business intelligence technologies
* **Client-Focused Mindset:** Enthusiastic about helping organizations make data-driven decisions through effective consulting and analysis.