Ayush Pradhan

Telephone: +44 (0)7594 184939
Email: ayushpradhan@hotmail.co.uk
github.com/ayushpradhan-dev/Data-Science-and-Analysis-Projects

Personal Profile

A highly motivated soon to be data science graduate student with a solid foundation in economics and a passion for transforming complex data into actionable insights. By combining economic principles with advanced data science techniques and machine learning algorithms, I am developing models with predictive and inferential capabilities applicable to a wide array of contexts. I am eager to tackle complex challenges and contribute meaningfully to data-driven decision-making in dynamic environments.

Education

King's College London

September 2024 – Present – Currently Enrolled (End Date 2025)

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

Royal Holloway, University of London

September 2019 – July 2022, Hybrid

- Degree: BSc Financial and Business Economics
  Grade: First Class Honours
- Relevant Modules:
  Quantitative Methods | Microeconomics | Macroeconomics | Corporate Finance | Financial Markets and Institutions | Industrial Economics | Financial Economics | Industrial Growth and Competition

The Data Science Course: Complete Data Science Bootcamp, Udemy

March 2024 – May 2024, Online

- Acquired working knowledge of advanced statistical methods such as K-means clustering in market segmentation applications and standardization of data.
- Gained insights into areas of probability including Bayesian inference, probability distributions, and combinatorics.
- Covered descriptive statistics and inferential statistical methods.

Google Data Analytics Professional Certificate

Oct 2023 – Jan 2024, Online

- 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.

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, predictive modeling.
- **Consulting & Communication:** Strong ability to abstract data insights for non-technical audiences, and tell stories with data.
- **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.
  *Projects available on request.

Professional Attributes

- **Problem-Solving:** Strong analytical thinker, adept at breaking down complex 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.