

MOHAMMAD ADNAN

+971 54 787 3623 [✉ adnan.bava123@gmail.com](mailto:adnan.bava123@gmail.com) [in /mohammad-adnan/](https://www.linkedin.com/in/mohammad-adnan/) [🔄 ADNAN-BAVA](#) [🌐 Portfolio](#)

Technical Skills

Languages and Tools: Python, SQL, Power BI, Tableau

Advanced Skills: Machine Learning, Deep Learning, Natural Language Processing, Data Analysis, Web Development

Projects

British Airways Customer Review Sentiment Analysis ([View](#))

Nov 2024 – Dec 2024

- Developed and implemented a sentiment analysis pipeline on **900+ British Airways reviews** scraped from [Skytrax](#) using Python libraries such as Beautiful Soup, pandas, and NLTK.
- **Utilized VADER sentiment analysis** to derive sentiments, categorizing them as positive, negative, or neutral, and identified that **46% of reviews had negative sentiment**, with the average customer rating skewed toward **4/10**, indicating dissatisfaction with **pricing, customer service, and delays**.
- Visualized key themes using word clouds and **n-gram analysis**, revealing pain points, alongside its strengths and providing **strategic recommendations** for improvement in **pricing transparency, customer service, and service reliability**.

Hybrid GCN & XGBoost Taxi Fare Prediction and GA for Vehicle Allocation ([View](#))

Jun 2024 – Nov 2024

- Addressed challenges in **fare estimation** and vehicle allocation caused by weather and **dynamic spatial-temporal demand patterns** in the e-hailing industry in [NYC](#).
- Developed and deployed a hybrid model integrating **Graph Convolutional Networks (GCN)** for spatial analysis, **XGBoost** for regression, and **Genetic Algorithms** for optimizing vehicle allocation.
- Enhanced **fare prediction accuracy (RMSE: 2.13, MAE: 0.56)**, improved resource distribution, and maximized revenue in high-demand zones. Deployed a **Streamlit web app** for real-time predictions and interactive decision-making.

LendingClub Loan Prediction Using Deep Neural Networks ([View](#))

Aug 2024 – Oct 2024

- Designed and implemented a Deep Neural Network (DNN) model using tensorflow for loan default classification, achieving **98.17% accuracy** and an **F1-score of 0.98** on the [LendingClub dataset](#).
- Addressed class imbalance using **SMOTE & hyperparameter tuning** improving **min class recall (loan defaults)** to **92%**.
- **Outperformed traditional models** by identifying complex patterns in large datasets, enabling smarter and more accurate lending decisions.

Certificates & Achievements

BCG X Data Science Job Simulation on Forage | *Data Analysis, Hypothesis Testing, ML, FE*

December 2024

- Conducted **customer churn analysis** using Python, identifying consumption patterns as the strongest churn driver over price sensitivity. **Hypothesis testing** revealed no significant relationship between price changes and churn.
- Optimized a **Random Forest model with 99% accuracy**, achieving **precision, recall, and F1-score of 0.97** in predicting customer churn, and delivered actionable insights for informed decision-making based on the analysis.

Introduction to Data Science by Cisco Networking | *Data Analytics, Machine Learning*

December 2024

- Earned Cisco's certification, focusing on data analytics principles, challenges, and opportunities.
- Developed a strong understanding of the role of data in **AI and Machine Learning**, along with career pathways in Data Science and Data Analytics.

Education

Asia Pacific University of Technology & Innovation

Master of Science in Data Science and Business Analytics

Oct 2023 – Nov 2024

Kuala Lumpur, Malaysia