

# Abdul Karim Abbas

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## Education

### University of Leeds

Sep 2021 – Jun 2025 (*Expected*)

*BSc, MEng Computer Science with Artificial Intelligence (Expected 2:1)*

- Awarded the International Excellence Scholarship in every academic year

### Al-Faris International School, Riyadh

Sep 2019 – Jun 2021

*International Baccalaureate (IB) Diploma ( 37 Points)*

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## Professional experience

### Oun.AI

Jul – Sept 2024

*Machine Learning Internship*

- Integrated Llama3 for user acquisition, boosting conversions with a tailored signup flow
- Leveraged Django and PostgreSQL to manage and store data for ~130 sign-ups within the first month
- Deployed through AWS EC2, ensuring scalable and efficient performance in a production environment

### PwC Middle East

Jun - Aug 2023

*Technology Consulting Internship (Foundation for the Future programme)*

- Developed an automation solution to streamline invoice processing between ~200 partners and vendors
  - Utilised Google AppsScript and Sheets to process incoming data of over 2,000 rows with efficiency
  - Deployed the project via a web app portal using Django and JavaScript for real-time access
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## Relevant university coursework

### Airbnb Visualisation and Price Predictions - Personal Project

*End-to-End predicting Airbnb listings dataset investigation*

- Cleaned and normalised dataset in MySQL, optimising relationships for future analysis
- Created an interactive Tableau dashboard with dynamic filtering to visualise key metrics
- Built a robust data pre-processing pipeline, using value imputation, one-hot encoding, and feature scaling
- Applied feature importance analysis using Random Forest, highlighting key drivers of price variation

### Third Year Individual Project – Achieved 73%

*Enhancing University Learning with Retrieval-Augmented Generation and GPT-3.5 Fine-Tuning*

- Achieved an average improvement of 79% across five key metrics after RAG
- Fine-tuned for an additional 23% average improvement, enhancing contextual alignment for complex queries
- Conducted user evaluations in an educational setting and demonstrated potential impact in the field

### Machine Learning Coursework – Achieved 81%

*Predicting cancer mortality rates in US counties*

- Designed a pre-processing pipeline addressing missing values, scaling and feature engineering
  - Implemented OLS, Lasso, and Ridge regression with GridSearchCV for optimal regularisation
  - Evaluated model performance using CV-MSE and achieved a score of 349.9 across the dataset
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## Skills

*Python, C/C++, SQL • NumPy, scikit-learn, Pandas, Matplotlib, Seaborn • MySQL, PostgreSQL • AWS, Docker • Llama, GPT • Git, GitHub • Tableau*