

Abdul Karim Abbas

sc21aka@leeds.ac.uk | +44 7827137857

Education

University of Leeds

Sep 2021 - Present

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

Al-Faris International School, Riyadh

Sep 2019 – Jun 2021

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

Professional experience

PwC Middle East

Jun - Aug 2023

Foundation for the Future, Technology Consulting Internship

- Developed an automation tool to streamline invoicing processing between partners and vendors
 - Utilised Google AppsScript and Google Sheets to handle processing for large data
 - Deployed the project via a web app portal built with HTML, CSS, and JavaScript
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Relevant university coursework

Third Year Individual Project – 73%

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

- Enhanced GPT-3.5 with Retrieval-Augmented Generation for targeted academic support
- Explored fine-tuning for high contextual alignment to complex queries
- Conducted user evaluations in an educational setting, demonstrating enhanced accuracy

Machine Learning Coursework – 81%

Predicting cancer mortality rates in US counties

- Designed a concise pre-processing pipeline addressing missing values and standardisation
- Implemented linear regression models for target value prediction
- Evaluated and validated model performance using Cross-Validated Mean Squared Error

Intelligent Systems and Robotics Coursework – 85%

Implementing advanced techniques with ROS and OpenCV

- Developed object detection algorithms using dynamic HSV colour masking
- Implemented image stitching using SIFT and BFMatcher to align and combine images
- Utilised grayscale conversion, edge detection, dilation, and Hough Circles for enhanced feature analysis

Spotify Song Recommendation Project

Personalised recommendations using vector cosine similarity

- Performed data pre-processing on a large dataset, including cleaning and standardising audio features
 - Implemented a content-based filtering algorithm with cosine similarity
 - Integrated with Spotify API to seamlessly fetch and update user playlist data in real-time
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Skills

Python, C/C++ • NumPy, scikit-learn, Pandas, Matplotlib, Seaborn • MySQL, SQLite3 • Git, GitHub