

# Mohamed Hazem Hussein

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UK Graduate Visa Ref: 3434-1574-4064-9296 – Valid until 26 May 2026

## EDUCATION

### MSc. Data Science | **Coventry University** – 1<sup>st</sup> Class Distinction

Jan 2023 – Jan 2024

Main Focus: Data Analysis, Modeling & Visualization using Python, SQL, R, HTML5, MS Office, & Tableau.

### BSc. Mechanical Engineering | **Texas A&M University**

Aug 2016 – May 2021

Main focus: Data Acquisition and Analysis, 3D Modeling, and System Control.

## EXPERIENCE

### AP Precalculus Professor | **Global Academy** Full Time

Jan 2024 – present

Role: Tutoring high-school sophomores and junior students in AP Calculus and AP Precalculus as part of the College Board AP Certification.

### STEM Branch Online Tutor | **Self Employed** - Part Time

Sep 2022 – present

Role: Tutoring high-school/university students online in STEM subjects including Physics and Math A-Levels, IB, SAT, and ACT examinations.

Achievement: Single-handedly managed to improve customers' scores by an average of 27% (almost 3 letter grades) despite previous scores.

### HVAC Consultant | **Arab Engineering Bureau** - Internship

Mar 2022 – Aug 2022

Role: Using software such as HAP30 and AutoCAD/SolidWorks to aid several teams in actualizing apartment/office designs into 3D models.

Achievement: Studied past expenses and worked with finance teams to negotiate a cost-efficient software upgrade for HAP with software provider.

### Associate Maintenance Engineer | **HassanESCO C.C.** - Apprenticeship

Jun 2021 – Dec 2021

Role: Working on-site to supervise new heavy machinery vehicles transfer and equipment repair to ensure construction schedules remain on time.

Achievement: Negotiated a new maintenance framework with Mercedes and Caterpillar, upgrading current systems from Reactive to Preventative.

### Junior Project Manager | **Qatar Foundation** - Contract

May 2020 – Aug 2020

Signed an NDA.

## PROJECTS

### Master's Dissertation - Automatic Image Caption Generation

Trained a CNN Deep Learning algorithm to recognize elements of pictures using a pre-existing training dataset, making use of subprograms such as *Long/Short-Term-Memory (LSTM)*, *Tensor Flow*, *Keras*, and *pillow*.

### Web-Based Vertical Search Engine for CU Publications

A vertical search engine, indexing 294 publications authored by members of the Coventry University Centre for Global Learning using *Python/BeautifulSoup* that collects and parses relevant publication data, and *Flask* to create a suitable web interface.

### Multicategory Text Classification Application

A Python-based text classification system using *TF-IDF vectorization*, *sklearn* library, and *tkinter* interface that is able to classify headlines and keywords into generic categories such as News, Sports, or Business.

### Comparative Analysis in Predicting Bank Term Deposit Subscriptions for Marketing Data

A machine learning classification finance project using *Logistic Regression*, *Random Forest*, and *K-Nearest Neighbor*, to analyze and classify client data used to predict bank account future default statuses.

## QUALIFICATIONS

- Data Analysis Expert Qualification | *Sarah Academy* Jun 2024
- Complete Python Bootcamp from Zero to Hero | *Udemy* Aug 2022
- Microsoft Azure Fundamentals in A.I. | *Microsoft* Jan 2022
- Junior Project Management Certification | *Brainnest Consulting* Aug 2021
- Creative Problem Solving & Decision Making EEP | *Spearhead* Dec 2017

## SKILLS

- 3D modeling using SOLIDWORKS & AutoCAD.
- Data acquisition using POWER BI, Tableau, LabVIEW, SAP2000 & HAP30, Scikit Learning
- Programming Languages: Python, MATLAB, JavaScript, R, HTML, SQL and RobotC.

Soft Skills include effective written and verbal communication, teamwork, problem-solving, time management, adaptability, programming languages, data science, mechanical engineering, data visualization, and data-driven insights.