
DOUAA GHEZALI

UK Citizen | douaaghezali17@gmail.com | 07432609524 | LinkedIn: Douaa Ghezali | GitHub: douaa1234

Education

BSc: Computer Science

05/2026

University of Birmingham

Birmingham, England

- Expected Graduation, May 2026
 - Concentrations: Artificial Intelligence and Computer Programming
 - Modules: Data Structures & Algorithms, Full Stack Application Development, Computer Programming, Machine Learning, Artificial Intelligence, Object-Oriented Programming, Software Engineering and Professional Practice, Data Science, Operating Systems and Systems Programming.
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Experience

Technology Development Part Time

01/2025 to Current

Gravilog

- Designed and implemented a machine learning model to classify foetal health as normal or abnormal based on foetal ECG signals during the gestational period.
- Achieved an overall accuracy of 97%, leveraging deep learning techniques to enhance predictive performance.
- Pre-processed foetal ECG data, applied feature engineering techniques and optimized the model using hyperparameter tuning.

Cyber Security Placement

08/2022 to 08/2022

Kingston University

Kingston Upon Thames, London

- Gained foundational knowledge in Cyber Security including threat detection, vulnerability assessment and network security fundamentals.
- Worked through hands-on labs involving real world attack scenarios to apply security principles and analyse system weaknesses.
- Learned and practiced Reverse Engineering techniques including binary analysis and patching challenges.
- Used tools such as IDA to inspect, understand and modify executable files, improving skills in analysing control flow, assembly instructions and program behavior.

Peer & Youth Tutor

11/2023 to 11/2025

University of Birmingham

- Mentored university peers and A-level students in Computer Science and Mathematics.
- Adapted teaching materials and gave personalised support to meet individual requirements.
- Built strong relationships with students, fostering a supportive and inclusive learning environment.

Web Development Virtual Work Placement

02/2022 to 02/2022

Vodafone

London Area, Remote

- Acquired practical skills in Web Development using HTML, CSS and JavaScript.
 - Designed and created a fully functional website showcasing a solid understanding of Full Stack development.
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Projects

Object Detection Model on Spot Robot, University of Birmingham, Birmingham

Co-Director, Sep 2024 – Dec 2024

- Developed a TensorFlow Lite object detection model using SSD-MobileNet, achieving a mean Average Precision (mAP) score of 74% for accurate object detection across various IoU thresholds.
- Integrated voice command recognition into the Spot robot, enabling the system to detect key spoken words, process them and trigger the corresponding object detection model.
- Contributed to the design and testing of the system, ensuring smooth interaction between voice recognition, object

detection and the robotic arm.

Emotion AI - Facial Key Points Detection London, England

Developer, Sep 2024 – Sep 2024

- Developed a Convolutional Neural Network (CNN) to accurately detect key facial landmarks such as eyes, nose and lips enabling advanced facial analysis.
- Trained the model on a diverse dataset of facial images, incorporating data augmentation techniques like brightness adjustment, flipping and rotation to improve generalisation and model robustness.

UoBuy – University Marketplace Application, University of Birmingham, Birmingham

Team Member, Sep 2024 – Dec 2024

- Built UoBuy, a full-stack student marketplace with listings, chat, orders and accessibility features.
- Led development of the Review Entity, including review CRUD operations, reporting and secure integration with product and order components.

Shared Grocery Delivery Orders Application Team Project – software engineering

Developer, Oct 2025 – Dec 2025

- Developed the Spring Boot backend for a shared grocery cart system for student households.
- Designed RESTful APIs for authentication, cart management and real-time updates.
- Integrated email notifications for student participation in shared orders.
- Built JPA/MySQL database models for efficient data handling.
- Optimized checkout to display individual contributions and total expenses.

Activities and Certificates

- **Breast Cancer Prediction Using Machine Learning London, England, Developer, Sep 2024 – Sep 2024**
- **University of Birmingham Robotics Society Team Member, Sep 2023 – Sep 2024**
- **Project Demonstrator, University of Birmingham Open Day.**
- **Recipient of the Metric Capital Scholarship** - awarded in recognition of outstanding academic achievement and potential.

Skills

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| • Java | • Jupyter Notebooks |
| • Python | • Git |
| • HTML/CSS | • Google Colab |
| • SQL | • Cyber security |
| • NumPy | • Data analysis |
| • Visual Studio Code | • Team collaboration |
| • IntelliJ | |