MUHAMMAD AZIB IQBAL BIN HARUN

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PROFILE SUMMARY



A Computer Science graduate with expertise in software engineering, full-stack development, AI, and cloud infrastructure. Proficient in Python, Java, SQL, Python, Java, JavaScript, and SQL, with experience in frameworks like Next.js, FastAPI, Spring Boot, Pytorch and TensorFlow. Experienced in developing and deploying AI-powered applications, building scalable web applications and leveraging data-driven insights. Developed a multiplayer educational game in Unity, integrating GPT-4 to generate dynamic math problems, achieving 84.6% positive user feedback from BetaFamily testers.

EDUCATION

Bachelor Of Science (Hons) Computer Science

University of Manchester | September 2021 - June 2024

Grade: Upper Second Class, 2:1

Relevant Modules: Algorithms & Data Structures, Machine Learning, NLP, Computer Vision,

AI & Games, Software Engineering

PROJECT EXPERIENCE

SwishFit: E-Commerce Platform

Personal Project (Github Repository) (Live Demo)

- Developed and deployed a full-stack e-commerce platform using Next.js, Prisma, PostgreSQL, and Stripe API, hosted on Vercel.
- Built an admin panel with a dashboard, product management (CRUD), customer tracking, and sales analytics.
- Integrated secure transactions and automation, including Stripe checkout, SendGrid Email API for order confirmations, and an order history system to enhance customer engagement.

AI RAG Chatbot for E-Commerce

Personal Project (Github Repository) (Live Demo)

- Designed a FastAPI-powered RAG chatbot that integrates real-time product data with DeepSeek R1 Distilled Llama 70B for intelligent query responses.
- Implemented **Docker-based containerization** for efficient scaling and deployment.
- Automated CI/CD workflows with GitHub Actions and deployed on AWS ECS (Fargate) for cloud-native operation.

Math:Ops: 2D Educational Game

Final Year Individual Project (Project Demo)

- Developed a **multiplayer educational game** in **Unity**, integrating **GPT-4** to generate dynamic math problems and **Firebase** for real-time updates and multiplayer functionality.
- Achieved 84.6% positive user feedback from BetaFamily testers, praised for engaging gameplay, effective learning outcomes, and intuitive UI/UX design.

Evidence Detection Using Bi-LSTM and BERT

Coursework Project with Peer (GitHub Repository)

- Trained and evaluated Bi-LSTM and BERT models on a dataset with 23,000+ training examples and 4,000+ test instances for evidence detection.
- Achieved 87.92% accuracy with BERT, outperforming Bi-LSTM by 6.5%, demonstrating the effectiveness of transformer-based models for NLP tasks

AI for Hex Board Game

AI and Games Group Project (Github Repository)

- Built an AI-driven decision-making system using Monte Carlo Tree Search (MCTS), optimizing computational resources for scalable performance, achieving 89% win rate.
- Collaborated in a team of 4, applying iterative testing, performance tuning, and adaptive enhancements to optimize AI strategies and maintain system reliability.

Customer Segmentation using K-Means Clustering

Machine Learning Personal Project (GitHub Repository)

- Implemented K-Means clustering on large-scale customer data, optimizing segmentation based on demographics and spending behavior.
- Utilized PySpark for scalable data preprocessing and Power BI for dynamic, real-time analytics dashboards.

WORK EXPERIENCE

Robotics Instructor

NextGen Makers Robotic Academy, Selangor, Malaysia | October 2024 - December 2024

- Taught weekly robotics and coding classes using Arduino and C++, fostering technical skills among students.
- Designed hands-on robotics projects to enhance student engagement, problem-solving, and practical learning.

Part-time Crew

Yaty Gallery, Manchester, UK | September 2022 - December 2023

- Assisted in **furniture delivery and logistics**, ensuring safe and efficient transportation.
- Worked in **teams of 4-6** for **wrapping, loading, and coordination**, developing teamwork, adaptability, and endurance.

Graphic Designer

Enjoy Creative, Selangor, Malaysia | February 2019 - April 2019

- Designed marketing materials, including event banners, pamphlets, and stickers, tailored to client needs.
- Strengthened visual communication and branding skills, working closely with clients to deliver high-quality designs.

SKILLS

<u>Programming Languages</u>

- HTML (Advanced)
- SQL (Advanced)
- JavaScript (Intermediate)
- Python (Intermediate)
- Java (Intermediate)
- C++ (Intermediate)
- PHP (Intermediate)
- C# (Intermediate)
- C (Intermediate)

Web Development

- MongoDB (Intermediate)
- Express.js (Intermediate)
- Firebase (Intermediate)
- FastAPI (Intermediate)
- React.js (Intermediate)
- Node.js (Intermediate)
- Docker (Intermediate)
- Next.js (Intermediate)
- Spring Boot (Basic)

AI, Machine Learning & Tools

- Tensorflow (Intermediate)
- Langchain (Intermediate)
- Power BI (Intermediate)
- Pytorch (Intermediate)
- Figma (Intermediate)
- Unity (Intermediate)
- Git (Intermediate)
- Amazon Web Services (Basic)
- Microsoft Azure AI (Basic)

CERTIFICATES

- Microsoft Certified: Azure AI Fundamentals (October 2024, Microsoft)
- ICDL Big Data (January 2024, ICDL Asia)

ACTIVITIES & LEADERSHIP EXPERIENCE

The Bet365 Coding Challenge Participant (2023), UniCS Manchester

- Competed in a **time-constrained coding challenge** hosted by UniCS Manchester, solving complex algorithmic problems.
- Demonstrated **critical thinking and problem-solving** by efficiently optimizing algorithms during competition rounds.

Team Member, Formula Student AI, University of Manchester (2023-2024)

- Trained reinforcement learning models using Unity ML-Agents to simulate autonomous racing behavior for self-driving cars.
- Optimized path planning and decision-making through simulation testing, improving trajectory accuracy and driving efficiency.

Team Captain, Rakuzan Rookie (Supersport Championship 2025 Winner)

- Led Rakuzan Rookie, a team of 12, to victory in the Supersport Basketball Championship 2025 by organizing structured training sessions and developing strategic gameplay.
- Strengthened team coordination and decision-making under pressure, showcasing leadership and adaptability.

Volunteer (Logistics Department), Rainbow of Cultures (2023), MALECS UK

- Assisted in **event planning and execution**, managing logistics for one of the largest cultural events for Malaysians in the UK.
- Coordinated venue setup, equipment arrangements, and crowd management, ensuring smooth event operations..