Asif Hussain

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Personal Profile

Aspiring AI Engineer with experience developing ML-model in healthcare, classifier that analyzed more than 5000 patient records with 95.77% accuracy. Projects include a Python-based energy optimizer, reducing simulated household costs by 12%, and a robotic sorting arm in Webots. Strong technical foundation in machine learning, systems engineering, and explainable AI. Eager to apply hands-on skills in an entry-level software or AI engineering role.

Education

MSc Artificial Intelligence (Expected 2025)
University of Huddersfield, UK
• Developed predictive ML models (XGBoost, Random Forest) to analyze public health data and obesity trends.
• Designed OWL ontologies with Protégé; used description logic to reason over structured domain data.
• Built autonomous agent control systems using MATLAB, and Simulink

BEng (Hons) Computer Systems Engineering – First Class Honours (2024)
University of Huddersfield, UK
• Final year project: Developed a Raspberry Pi energy optimizer using Octopus Energy API data. Controlled custom electronics via Python (GPIO) and analyzed 10–15% simulated cost savings in Excel
• Coded embedded systems in C and VHDL (Quartus).
• Applied system engineering principles including requirements analysis, modular design, risk assessment, and system integration in individual and group design projects.

Technical Skills

Languages: Python (Advanced), Java (Intermediate), C (Intermediate)
Libraries & Frameworks: Scikit-learn, PyTorch, Pandas, Matplotlib, Seaborn, Numpy
Tools & Platforms: Microsoft Azure, Google Colab, Simulink, Git (branching, version control)
Databases: MySQL, MS Access
Practices & Methodologies: Scrum Agile, Model-Based Engineering, Data Preprocessing

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Work Experience

Part-Time Retail & Hospitality Roles *2020 – 2024*
• Handled dynamic customer interactions, demonstrating quick problem-solving and situational adaptability
• Supported team operations during peak hours, contributing to smooth service delivery and efficient task prioritization
• Developed strong communication, resilience and time management while balancing part-time work with full-time academic commitments

Projects

Vision-based Robotic Sorting System
Tools: Webots, C Programming, FSM, RGB Camera, Distance Sensors
• Built a simulated robotic arm to identify and remove distinct items using FSM logic.
• Integrated sensors and camera for autonomous sorting and conditional logic execution.
• Visualized robot states with debug tools; refined gripper mechanics and drop accuracy.
• Developed a robotic arm to automate object sorting by color.

COVID-19 Outcome Prediction from Lab Tests
Tools: Pandas, Numpy, XGBoost, Google Colab
• Trained classification models on clinical datasets to predict infection likelihood.
• Achieved 95.77% accuracy; analyzed key predictive lab markers; considered SHAP integration.

Obesity Risk and Demographic Trends
Tools: Seaborn Random Forest, Linear Regression, Google Colab
• Modeled link between ethnic diversity and obesity levels across UK regions.
• Investigated religious demographic links to obesity-related illnesses.
• Found potential correlations between both ethnic and religious demographics and obesity-related illnesses across regions, suggesting that cultural and social factors may influence public health outcomes.

Certifications & Links

• **LinkedIn Learning:** Microsoft Azure AI Essentials Professional Certificate, Career Essentials in Generative AI
• **Portfolio:** Blog articles and project demos at asifh.me
• **Repositories:** All projects with code on GitHub

Languages

- English (Fluent), German (Native), Chinese (HSK1)