Tayyeba Sadaq

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EDUCATION

BSc Honors Computer Science

University of Derby

Sep 2022 – Current

- **Programming II** \rightarrow C# and Unity Developed a functional game with a clear UI and well-commented code.
- **Databases** → SQL Created and managed an airline database with a front-end in Microsoft Access.
- **Software Engineering** → Java Designed and developed an Airline Management System following SE methodologies.
- Systems Programming → Linux Worked with Linux commands and system-level programming.
- Language Design and Implementation → Python developing an interpreter in python
- Data Mining & Foundations of AI → Python Analysing, processing data and training different ML models to evaluate results and findings.

CFG Degree Software Engineering

Code First Girls

August 2024 - December 2024

Distinction

Foundation → Developed APIs using Python and MySQL for projects, including a Book Tracker API.

Specialisation → Built a finance management website using Python, MySQL, and HTML/CSS/JS, applying Agile methodologies with Trello

EXPERIENCE

IEUK Technology

June 2024

- Created a six-month roadmap for a health-tracking app, considering user metrics and feedback.
- Developed research, presentation, and peer-review skills through employer-led workshops.

Buildspace S5 June-July 2024

- Designed and developed a Book Tracker App using React Expo, allowing users to log books and track progress.
- Focused on mobile-first development with ongoing optimizations for web compatibility

PROJECTS

Diabetes Prediction using Machine Learning and Explainable AI → Python, REACT expo, ML, XAI

- Developed 3 ML models with python to work with LIME XAI to predict diabetes risks based on medical history
- Integrated XAI for model transparency and foster trust between users and AI for real world applications
- Built web and mobile applications with REACT expo framework with a python API backend to interact with models and provide accessibility for both patients and professionals.

Women in STEM blog → HTM/CSS/JavaScript

- Created accessible website promoting Women in STEM fields
- Led hierarchical team, including managing deadlines, progress checks, and contributing to programming, planning, and writing.
- Moderated at university and presented as group project to staff

Aid Worker Simulation → Unity and C#

- Sponsored/requested by an external partner.
- Created a simulation to navigate aid workers through crisis scenarios.
- Collaborated effort with peers to manage time, working to deadlines and distributing tasks and workloads.

ADDITIONAL COURSES/CERTIFICATIONS

MOOC Data and SQL → Code First Girls (December 2023) – built library database with SQL MOOC JavaScript → Code First Girls (March 2024) – built interactive recipe generator web project

SKILLS

Programming Languages: Python, SQL, JavaScript, C#, Java Frameworks & Tools: React, AWS, Git/GitHub, Unity, Linux Concepts: Machine Learning, Explainability (XAI), APIs, Databases