

Khizar Ali

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Summary

Second-year Computer Science student at the University of Sheffield who has proactively delivered projects with measurable impact, including a website redesign that increased user engagement by 10-15%. Currently applying my skills through hands-on involvement in student-led technical projects, including autonomous systems development with Project Trident and leading technical workshops as CS Lead for the MedTech Society. I'm passionate about working on new technologies, collaborating with others, and developing my skills through teamwork.

Education

University of Sheffield, BEng in Computer Science (Software Engineering)

Sept 2025 – Present

Modules Covered:

- Introduction to Software Engineering
- Foundations of Computer Science
- Systems and Networks
- Java Programming
- Introduction to Artificial Intelligence
- Algorithms and Data Structures

Huddersfield New College

Sept 2022 – June 2024

A Levels: Computer Science(A), Mathematics(A), Physics(A)

Experience

CS Lead

August 2026 - Present

MedTech Society, University Of Sheffield

- Developing and facilitating a series of coding workshops for entry-level medical students, covering Python fundamentals through to hackathon-readiness topics such as project setup and Git version control.
- Co-leading the planning and execution of the society's upcoming hackathon, including managing a sub-committee of volunteers responsible for on-the-day delivery.
- Advising on the development of an additional curriculum track focused on R for medical research, to be introduced from February 2027.

AI and Software Team Member

October 2025 - Present

Project Trident, University Of Sheffield

- Independently completed the entire third-year Robotics module (ROS2 + Gazebo) as a first-year, covering theoretical foundations in navigation, odometry, services, actions, and computer vision (OpenCV) to support AUV development.
- Developed a custom ROS2 node to control simulated AUV thrusters within a Gazebo environment, utilizing keyboard inputs to test and refine initial movement logic in an isolated simulation.
- Researched and presented a full technical breakdown of the micro-ROS Teensy 4.1 controller, mapping all I/O hardware and proposed a data-flow architecture between the Jetson Nano and Teensy to show how both controllers synchronise to operate the AUV's thruster system.

Mathematics Tutor (Year 6 - GCSE)

Jan 2023 - Jan 2025

Smart Kids Huddersfield LTD

- Tutored over 60 students (Year 6–GCSE) and helped many improve by 2–3 grades above their predicted levels through personalised lesson plans and consistent feedback.
- Facilitated engaging mathematics lessons and provided one-on-one support to strengthen students' understanding of key concepts.
- Monitored student progress and communicated with parents to share insights on student performance and address academic concerns.

Mail Sorter (Royal Mail)

June 2024 - March 2025

Royal Mail YDC Normanton

- Sorted and organized over 2000 parcels everyday within the distribution centre, unloading shipments and ensuring accurate placement and dispatch in a high-volume, fast-paced environment.
- Collaborated with team members to maintain workflow efficiency, accuracy, and safety standards throughout daily operations.

Projects

Badly Brewed Coffee, Team Software Engineering Project

- Collaborated in a team of 6 to design and build a fully functional e-commerce website for a fictional coffee shop, as part of a year-long Introduction to Software Engineering module, achieving a final grade of 73%.
- Gathered stakeholder requirements and wrote user stories across multiple user roles (customers, barista, admin, manager), following an Agile sprint-based development process using GitLab for version control across the second semester.
- Built using Ruby, HTML, and CSS on the Codio platform, implementing features including account management, menu browsing, shopping cart, checkout, refunds, loyalty cards, and a discount system.
- Personally developed the product menu and coffee bean selection pages, along with the full add-to-cart, cart, and checkout functionality.

Elemental Twins

Github Elemental-Twins

- Designed and developed Elemental Twins, a 2D two-player platform game built using Python and the Pygame library as part of my A Level Computer Science coursework.
- Applied Agile Methodologies throughout the full software development lifecycle — including stakeholder analysis, requirements gathering, design, implementation, testing, and iterative improvements.
- Implemented object-oriented programming (OOP) principles to produce clean, modular, and maintainable code, while documenting the complete development process under strict time constraints.
- Achieved a score of 67/70 (A*), demonstrating strong technical proficiency and project management skills.

Smart Kids Huddersfield Website Redesign

Website link

- Identified the need to modernise the company’s outdated website and took the initiative to redesign it using Wix, incorporating HTML and CSS to enhance layout, design, and functionality.
- Refreshed the site’s visual theme, updated written content, and ensured that all services and features accurately reflected the company’s current operations, incorporating 2–3 new features to improve accessibility and user experience.
- Completed the project independently and voluntarily, gaining practical experience in web design, creativity, and client communication, which contributed to a 10–15% increase in user engagement following the update.

Technical Skills

Languages: Python, HTML & CSS, Java (Familiar), Ruby (Familiar), JavaScript (Familiar)

Technologies & Frameworks: ROS 2, Gazebo, Solid Edge, VS Code, Git, Github, Wix

Libraries: Pygame

Concepts: Object-Oriented Programming, Agile Methodologies, Project Documentation

Leadership & Extracurricular Activities

Vice-Captain, Huddersfield New College Cricket Team

Sept 2022 - June 2024

- Demonstrated leadership, teamwork, and strong communication skills by acting as a communication link between the coach and players, and assisting the captain with on-field tactical decisions.
- Balanced a regular training and matches schedule with a demanding A-Level workload, showing strong time management and discipline.

ECB Level 1 Trainee Cricket Coach

Dec 2022 - Jan 2023

- Proactively completed training on effective coaching principles and child safety, and was awarded ECB level 1 Coaching Certificate.
- Planned and delivered an engaging coaching session for 5-6 primary school children, collaborating with a peer to design effective drills and provide constructive feedback.