

Jack Smith

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Computer Science student at the University of Sheffield with a strong builder's mindset and a focus on AI, computer graphics and interactive systems. I specialise in designing and shipping technically demanding software, from full-stack applications for real clients to low-level graphics pipelines and generative AI tools. I'm particularly interested in problems where AI systems must remain controllable and usable in applicable contexts.

Education

BSc Computer Science, The University of Sheffield

Expected to graduate 2026

- On track to graduate with first class honours.
- Including modules in AI, Software Engineering, Mathematics

John F Kennedy School and Sixth Form

2016 - 2023

- Maths (A*), Computer Science (A), Further Mathematics (B), Physics (B)
- 10 GCSEs including Maths, English and Computer Science

Experience

Full-Stack Developer

Freelance Web Development

2024 - Present

- Co-founded a small web-development studio, delivering modern, responsive websites to local Sheffield businesses with outdated websites.
- Delivered end-to-end projects: client discovery, design, full-stack development, and deployment using React, Tailwind/CSS, GSAP, and Cloudflare/Vercel
- Developed strong B2B sales, client communication and project discovery skills by pitching services, writing proposals and maintaining customer relationships.

Missions Engineer

Project Falcon (Student Project)

2023 - 2024

- Project Falcon developed a fixed wing quadcopter to compete in the IMechE competition.
- The missions team developed the FGCS using Node.js and Python, which helped monitor the drone, record and display data, as well as receive real world data.

Projects

3D Rasterizer Engine

- I developed a full 3D engine pipeline from scratch using Python.
- It taught me the mathematical principles that underlie computer graphics.

Generated Human Motion Editing Tool

- Designing a Unity-integrated tool for generating and editing AI-generated 3D human motion from text prompts.
- Enables keyframe-based local regeneration while preserving semantic intent, continuity, and physical plausibility.

Client-Led Language Learning App

- In my University I have led development of a phonetics-based language learning app for a real-world client.
- Communicating with a client in an agile team has been extremely rewarding.

Technical Skills

Python & Machine Learning
Generative AI Systems
Computer Graphics & 3D
Unity & Interactive Tools

Full-Stack Web Dev
Backend & API Design
Databases & Data Models
Deployment & DevOps

Languages

English (Native)
Arabic (Intermediate)

Honours and Awards

Sheffield Engineering Leadership and Service Award (SELSA)

Selected for this competitive academy to develop leadership, problem-solving and communication skills; led three interdisciplinary teams in real engineering challenges.

Dragon's Apprentice

Led the winning team to turn £100 seed funding into £1000+ for charity via creative events. Our team came up with dozens of ways to do this, including a balloon race, an auction and a milkshake stand which won the creativity prize alongside the overall prize.

Public Speaking

Runner-up in a regional public speaking competition in which I spoke about the legalisation of psychedelics. The board of judges included high ranking officials, such as an advisor to the prime minister, a police lieutenant and an RAF officer. These were experiences that pushed me out of my comfort zone and forced me to learn a new skill.

Engineering You're Hired (EYH)

Placed 3rd overall in a university-wide engineering challenge designing a decentralised swarm robotics solution for pipe inspection and repair; contributed swarm behaviour logic and system-level simulations.

Hobbies and Skills

Rock Climbing

Three years of indoor/outdoor bouldering and traditional climbs in Peak/Lake Districts, Portland and Fontainebleau. It has led to unexpected experiences such as cold plunges and long distance runs with the society. I have pushed myself in this sport more than any other, reaching the climbing grade of f7B+ recently.

Hitchhiking

With my university, I hitchhiked from Sheffield to Porto (1,500km) and Sheffield to Bratislava (1,600km) over a week with no money at all, helping the society reach over £1.3M raised for charity. It really showed me the generosity of strangers and the importance of spontaneity.

Judo

I've recently enjoyed learning judo, progressing the belts while learning new techniques. I recently competed in BUCS, a national competition against other universities.