

Jack Smith

BSc Computer Science, First Class · Founder, Recensorium · AI, Graphics & Interactive Systems

CONTACT

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TECHNICAL SKILLS

PROGRAMMING

Python, TypeScript, C#, JavaScript,
Haskell, Ruby, SQL

AI & ML

PyTorch, CNNs, transfer learning,
reinforcement learning, generative AI,
on-device LLM inference, agent
orchestration, MCP

GRAPHICS & 3D

Unity, Three.js, shaders, rasterisation,
Blender

WEB & FULL-STACK

React, Next.js, SvelteKit, Node.js,
Fastify, Flask, Express, Rails, Tailwind,
GSAP

DATA & INFRASTRUCTURE

PostgreSQL, Drizzle, Redis, Cloudflare
Workers, Fly.io, Docker, Vercel,
Firebase, Stripe, GitHub Actions

EDUCATION

BSc Computer Science

The University of Sheffield
First Class Honours · 2026
Dissertation: MotionGen, graded 77.
Modules across AI, machine learning
and computer graphics.

A-Levels and GCSEs

John F. Kennedy School, Hemel
Hempstead · 2023
Maths (A*), Computer Science (A),
Further Maths (B), Physics (B). 10
GCSEs including Maths, English and
Computer Science.

PROFILE

First Class Computer Science graduate and founder of Recensorium, a platform where AI agents publish research papers and peer-review each other's work, designed and built solo as a five-app monorepo. I work across AI systems, computer graphics and full-stack engineering, from generative models running on a user's own machine to the infrastructure behind them.

EXPERIENCE

Founder & Engineer

2026-Present

Recensorium Ltd, Mildenhall

- Built a peer-review platform for AI-generated research: agents publish over a REST API or MCP server and are assigned other agents' work to review across four rubric dimensions, weighted by reputation.
- Designed the review-assignment mechanism, a weighted bandit over coverage, salience and uncertainty that samples without replacement, so an agent never chooses what it reviews. Self, same-owner and same-lab exclusions close the collusion routes.
- Shipped it solo: a five-app TypeScript monorepo of ~139,000 lines (Fastify API, Next.js on Cloudflare Workers, orchestrator, MCP server, simulation harness) on Postgres and Fly.io.
- Stress-tested the scoring model against 17 adversarial reviewer archetypes, including collusion rings and sybil swarms, tuning the constants against hard gates on convergence and rank inflation.

Software Engineer

2026

Early-Stage AI Startup, London · Contract

- Built the internal API that pulled their disconnected systems behind one interface, and rewrote their Cloudflare Workers, including GitHub sync.
- Put three surfaces on it, a dashboard, a CLI and an MCP server, so the team drove the same tooling from browser, terminal and agents.

Founder & Full-Stack Developer

2024-Present

Freelance Web Studio, Sheffield

- Run projects end to end for local businesses: discovery, design, build and deployment in React, Tailwind and GSAP on Cloudflare.
- Win the work as well as build it: pitching, scoping and pricing each engagement, then handing over a responsive, search-optimised site.

Missions Engineer

2023-2024

Project Falcon, IMechE Student Team

- Built the ground control system for a fixed-wing quadcopter in Node.js and Python: live telemetry, recording and display.

HONOURS & AWARDS

HackSheffield 9

1st place, Best GitHub Repo · 2024

Snapchat Lens Competition

£1,500 prize; the lens has been used over 1M times · 2022

Dragon's Apprentice

Led the winning team, turning £100 into over £1,000 for charity, and took the creativity prize

Engineering You're Hired

3rd place, swarm-robotics pipe-inspection concept · 2025

SELSA Leadership Academy

Selected to lead three interdisciplinary engineering teams

Regional Public Speaking

Runner-up

INTERESTS

- Bouldering to f7B+ across the Peak District, Lake District, Portland, and Fontainebleau
- Charity hitchhiking: Sheffield to Porto and Bratislava, and Croatia to Morocco
- Judo, competed nationally at BUCS
- Grade 8 guitar

LANGUAGES

English Native

Arabic Intermediate

SELECTED PROJECTS

MotionGen

Dissertation, graded 77 · 2026

Unity plugin running motion-generation models entirely on the user's own machine, in-editor, with an editing workflow built for animators. Free and open-source; Unity Asset Store release pending University approval.

Unity · C# · Generative AI · Local inference

HabitFlow

Live · 2026

Habit and goal-tracking platform with social feeds, a GitHub-style consistency heatmap, and insights generated with Google Gemini.

React · TypeScript · Express · PostgreSQL/Neon · Firebase Auth

AlexNet Transfer-Learning Study

Graded 95% · 2026

Froze and re-trained AlexNet layer by layer to measure how each training strategy changed what the network learned, and where the accuracy actually came from.

Python · PyTorch · CNNs · Transfer learning

Neighbourly

Live · 2026

Map-based app that matches neighbours needing help with nearby volunteers, with real-time chat. Built out from the HackSheffield 9 winning entry.

SvelteKit · Flask · PostgreSQL · Google Maps · Auth0

Language Learning App

Software Hut · 2025

Ruby on Rails app built for a real client on a university team project: role-based learner and admin dashboards, progress tracking and spaced repetition.

Ruby on Rails · PostgreSQL · ActiveStorage · HAML · Bootstrap

MNIST From-Scratch Classifier

2024

SVM and KNN implemented from first principles in NumPy, with PCA and augmentation, reaching 99.8% on the noisy test set.

Python · NumPy · SVM · KNN · PCA

3D Rasteriser

2023

Software graphics pipeline in pure Python: projection, rasterisation, z-buffering and .obj loading, with no graphics API underneath it.

Python · Rasterisation · Computer graphics

Offline AI Mobile App

In progress

On-device LLM inference using llama.cpp and quantised GGUF models, with offline maps and survival guides.

llama.cpp · GGUF · On-device inference

Dynamical Systems & Reinforcement Learning

95% and 100% · 2026

Modelled the Duffing oscillator and a predator-prey agent-based system, and implemented tabular Q-learning.

Python · NumPy · Agent-based modelling · Reinforcement learning