Alfie Atkinson

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EDUCATION

University of Lincoln – M.Sc. Computer Science: Predicted Distinction (86% Average) *Sept 2025*
Key Modules: Software Engineering, Programming Principles, Cyber Security, Machine Learning, Computer Vision

University of Lincoln – B.Sc. Computer Science: First Class with Honours *May 2024*
Key Modules: Team Software Engineering, Advanced Programming, Databases, Cloud Computing, User-Experience Design

EXPERIENCE

Synx Games *Feb 2025 – Present*
Software Engineer (Internship) Lincoln, UK
- Co-led the end-to-end development of a multiplayer Roblox game from scratch, delivering a functional prototype in 8 weeks with core gameplay systems and UI built in TypeScript, React, and the Knit framework.
- Led a £500,000 Roblox Creator Fund application with pitch decks, timelines, and retention/monetisation plans.

B-Hive Innovations *May 2024 – Sept 2024*
Software & Data Technician (Internship) Lincoln, UK
- Diagnosed and resolved 8 critical reliability issues in Python-based applications for the TuberScan Venture project, improving data accuracy by 30% and ensuring accurate data collection for training machine-learning models.
- Enhanced data collection processes by automating data processing and validation pipelines, reducing manual errors to 0 and saving 5+ hours of work weekly spent fixing errors and inconsistencies.
- Improved task workflows and Git version control in a cross-functional team, delivering 95% of sprint objectives.

PROJECTS

OpenGalaxy [GitHub] [Live Demo] *Jan 2025 – May 2025*
Full-Stack Development (TypeScript, React, Next.js, Tailwind CSS, Django, PostgreSQL)
- Engineered a high-performance React and Next.js SPA using TypeScript, reducing runtime errors by 40% with static typing and hybrid CSR/SSR rendering, resulting in a 25% faster page load and improved SEO rankings.
- Implemented responsive UI components with TailwindCSS and DaisyUI, cutting DOM size by 80% and accelerating styling workflows, enhancing UX consistency across devices and reducing frontend maintenance time by 60%.
- Designed backend data schema with Django and PostgreSQL fully normalised to 3NF, optimising query efficiency and ensuring data integrity for user accounts and media metadata, reducing redundant storage by 15%.
- Secured user authentication using Django REST Framework with HttpOnly JWT tokens, preventing client-side script access and mitigating XSS risks, achieving robust security for sensitive user sessions.
- Automated full-stack CI/CD pipelines integrating Vercel (frontend) and Heroku (backend), with GitHub Actions enforcing Cypress E2E tests on all PRs, decreasing deployment failures by 35% and accelerating release cycles.

Library Management System [GitHub] *Oct 2024 – Jan 2025*
Systems Programming (C++, JSON, Networking, Multi-threading)
- Engineered a library management system CLI in C++ with CRUD operations and JSON data persistence.
- Implemented 40+ unit tests using Catch2 to facilitate continuous integration and Test-Driven Development.
- Integrated multi-threading and socket-based networking, enabling concurrent user interactions and remote access.

Sentiment Analysis Tool (B.Sc. Dissertation Project) [GitHub] *Sept 2023 – May 2024*
Data Science / Machine Learning (Python, NLP, TensorFlow)
- Designed and implemented a sentiment analysis tool in Python leveraging BERT for social media analytics, delivering sentiment predictions with 86.95% accuracy, furthering to 95% with k-fold cross-validation enabled.
- Optimised data pipelines with Pandas and NumPy, improving processing speed by up to 80% on large datasets.

SKILLS

Programming Languages: Python, TypeScript, JavaScript, C++
Web Development: React, Next.js, TailwindCSS, Django, Node.js, Express.js, RESTful APIs, Redux, Redis
Cloud & DevOps: Docker, Kubernetes, Azure, Vercel, CI/CD, Git, Agile, SDLC, PostgreSQL, MongoDB

COURSES & CERTIFICATIONS

IBM – Full Stack Software Developer Professional Certificate (8/15 courses completed) *Sept 2024 – Present*
Content: React, Node.js, Express.js, Django, Flask, Python, Git, Docker, Kubernetes

IBM – DevOps and Software Engineering Professional Certificate (10/15 courses completed) *Sept 2024 – Present*
Content: DevOps, Agile, GitHub, Linux, Bash, SDLC, CI/CD, TDD/BDD, Cloud Computing