Daniel Simms

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EDUCATION

University of Nottingham   **September 2022 - May 2026**

BSc. in Computer Science with a Year in Industry: Predicted Grade: 2:1 (Upper Second Class Honours)

Top Modules: Developing Maintainable Software 82%, Databases & Interfaces 84%, C++ Programming 78%, Intro to Software Engineering – 79%, Software Specification – 73%, Computer Fundamentals – 95%

TECHNICAL SKILLS

Languages: Python, JavaScript (ES6+), TypeScript, Java, SQL, C++, C, HTML/CSS

Frameworks & Libraries: React, Node.js, Tailwind CSS

Databases: MongoDB, PostgreSQL

DevOps & Tools: Git, Docker, GitHub Actions, Postman, Jira, Confluence, Jenkins

Cloud & Infrastructure: IBM Cloud, Serverless Functions (IBM Cloud Functions), AWS Cloud Practitioner Certification, Hybrid Cloud, Cloud Computing

WORK EXPERIENCE

IBM Consultant Intern (Year in Industry)   **August 2024 - August 2025**

Consultant   *London*

- **Q3 Growth Minded Behaviour Intern Award**: Recognised for outstanding performance, earning the highest rating ("Exceptional") for both Skills and Business Outcomes in 3-month, 6-month and 12-month performance reviews
- **Onboarding & Offboarding Management**: Directed the onboarding and offboarding process for a 25-member account, ensuring 100% compliance with Data Security & Privacy (DS&P) compliance and precise access control across all systems
- **Client Deliverable Preparation**: Managed monthly client reports, analysing 14 KPIs (technical), collaborating with cross-functional teams to gather data and produce actionable insights for senior stakeholders
- **Generative AI POC Development**: Built a Retrieval-Augmented Generation (RAG) model integrating a knowledge base of learning materials, allowing new joiners to resolve 85% of queries through natural language queries

Software Developer

- **Chain of Thought Prompt Engineering:** Engineered advanced LLM prompts to interpret and flag contract targets, enhancing clarity through chain-of-thought prompting and achieving an 88% precision rate
- **Enhanced AI model performance**: Fine-tuned IBM Watson Discovery models, resulting in a 20% improvement in accuracy through confusion matrix evaluations and critical issue resolution, supporting data-driven decisions
- **Scalable Data Pipeline Implementation:** Built a Python-based automation pipeline with IBM Cloud Functions and Object Storage, cutting processing time by 40% and scaling to all contracts through API integration and real-time event-based processing
- **LLM parameter optimisation**: Calibrated Mixtral-8x7B-Instruct-v0.1 model parameters, achieving a 90% success rate in generating contextually relevant and concise responses, and becoming the team subject matter expert on this model

GLL   **March 2021 – August 2024**

Recreational Assistant

- Undertook the responsibility of coordinating pre-scheduled recreational pool sessions, managing a daily timetable accommodating up to 1750 swimmers

- Demonstrated leadership by overseeing poolside operations, ensuring 100% adherence to safety standards and fostering a positive environment for over 1,700 swimmers

PROJECTS

Edvia - AI-powered Learning Platform| *Personal Project*   [Next.JS](#) **| TypeScript | PostgreSQL|**
- Engineered a full-stack educational platform with customizable AI tutoring companions, enabling real-time voice learning and AI-generated recaps, improving user engagement by 60% and reducing query resolution time by 45%
- Architected a robust relational database schema with Supabase PostgreSQL to manage user data, AI agent configurations, and session history, preserving data integrity with foreign key constraints and cascading deletes
- Integrated cloud APIs (Vapi for real-time audio, Gemini AI for reasoning) to create a complex, AI-enabled workflow, asynchronously processing conversations to generate structured summaries and key takeaways
- Constructed a responsive and accessible UI with modern React patterns, state management, and TypeScript, enhancing code reliability and providing a seamless user experience across all devices

Website Portfolio | *Personal Project*   **React | TypeScript**
- Designed a responsive personal portfolio website with React functional components and Tailwind CSS, optimising page load speed by 30% and providing a showcase of projects and skills
- Created advanced component abstraction, increasing code maintainability and reducing runtime errors by improving type safety across the project
- Enhanced UI/UX by applying mobile-first design and accessibility best practices, resulting in a seamless user experience across devices and improved usability for all users

E-Commerce Website | *Personal Project*   **Next.JS | JavaScript | JSON**
- Created a fully responsive e-commerce website focused on eco-friendly products, implementing product displays with JSON data handling to increase user engagement and streamline content management
- Implemented shopping cart functionality and intuitive navigation, elevating customer experience and increasing user retention
- Owned the full project lifecycle from UI design to deployment, delivering a high-performance, responsive website that met user needs

LEADERSHIP EXPERIENCE

Software Engineering Course Project | University Project   **September 2023 - May 2024**
Team Project Lead
- Supervised an 8-member full-stack software engineering team to deliver a year-long web application project, upholding alignment with stakeholder requirements and on-time delivery
- Delegated and coordinated front-end and back-end tasks across React, Node.js, and database components, boosting development efficiency by 25% and driving timely feature delivery

Ada Lovelace School | IBM Mentoring   **February 2025 - March 2025**
Volunteering
- Volunteered for 6 weeks at Ada Lovelace School, delivering interactive sessions on AI and tech careers to inspire and engage secondary school students
- Shared personal software engineering journey as a panellist, helping demystify STEM pathways for over 100 young attendees and encouraging greater diversity in tech