

JACOB MERRITT

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PROFESSIONAL PROFILE

Software Engineering graduate from Teesside University with a solid foundation in programming, development and systems design. Proven skills in teamwork, problem-solving, and organisation through academic projects. Actively building on core knowledge and eager to contribute to a collaborative, growth-focused tech team

TECHNICAL SKILLS

Solid experience with Python, Java, Kotlin, C# , and foundational skills with C++
Experience with HTML, CSS for building responsive, user-friendly interfaces
Good understanding of Android app development, web tech, and API integration
Familiar with Firebase, GitHub Actions, Azure, Streamlit, and MQTT
Knowledge of SQL, NoSQL, cloud deployment, and DevOps principles
Exposure to cybersecurity, ethical hacking, and GDPR-aware development practices

PROJECTS & TECHNICAL EXPERIENCE

Web Event Booking App

Web Apps & Services (2024)

Solo-built event management platform with guest, staff, venue, and menu booking features

- Developed using ASP.NET MVC with C#, HTML, JavaScript, and Entity Framework Core
- HTML, Bootstrap, CSS, and jQuery for simple UI design and some front-end features
- Implemented full-stack logic for CRUD event management and guest/staff assignments
- Integrated external food RESTful API for dynamic menu creation and booking flexibility

Pet Guardian: Smart Collar IoT System

Internet of Things (2025)

Real-time AI-based safety system for outdoor cats using Streamlit, Python, and Azure

- Contributed as a core team member with strong communication and collaboration
- Designed and integrated lightweight AI models into the system for real-time threat detection
- Refined sensor codebase to support real and fake hardware alongside simulation testing
- Connected the system to Cosmos DB, MQTT, and Azure IoT Hub for secure, scalable data flow
- Developed the Streamlit dashboard with real-time configurable settings linked to the cloud

Gamified Diabetes Management App

Final Year Project (2025)

Mobile health app to support Type 1 diabetes management through gamified habit tracking

- Built using Kotlin, Java, and XML layouts in Android Studio (MVVM architecture)
- Added colour-coded glucose data graphs and a point-based streak reward system
- Refined UI/UX through 6 Agile sprints with user feedback after each phase

Furniture Ordering System

Cloud DevOps (2025)

Distributed ordering backend developed with C# and deployed via CI/CD to Azure

- Built API services with fake supplier integrations and JWT authentication
- Deployed via GitHub Actions pipeline with test gating and cloud configuration
- Focused on DevOps practices, error handling, and secure deployment

MVC Portfolio Site – Currently developing (then will be hosting on Render) a personal portfolio app. Built with MVC architecture, connecting to a backend API featuring my projects and a live development log.

EDUCATION

Teesside University

BSc (Hons) Software Engineering, **First-Class Honours** (80%+ average) 2022 – 2025

Key Modules: Software Engineering Principles, Applications Development, Systems Design, Databases (Relational & NoSQL), Algorithms & Data Structures, Cybersecurity & Ethical Hacking, Web & Mobile Development, DevOps & Cloud Deployment, Information Governance, IoT Systems, Security Analysis

BSc (Hons) Computer Games Programming 2021 – 2022

(Completed Year 1 before transferring to Software Engineering)

Key Modules: C++ Programming, Visual Scripting, Systems & Game Technology

Bede Sixth Form College

2019 – 2021

A-Levels: Computer Science, Economics

BTEC: Business

CORE SKILLS

- **Agile Development:** Experienced in sprint planning and adapting to user feedback during iterative development cycles
- **Team Projects & Communication:** Proven collaboration in group-based university projects and IoT system development
- **Problem-Solving & Debugging:** Comfortable identifying and resolving issues across backend logic, APIs, and cloud deployments
- **Creative Feature Design:** Independently designed gamified systems, dynamic UIs, and practical AI applications for real-world problems
- **Time Management & Organisation:** Balanced multiple projects, deadlines, and part-time commitments with consistent delivery
- **User-Centred Thinking:** Actively refined designs based on feedback to improve usability and visual clarity
- **DevOps & Deployment:** Hands-on experience with GitHub Actions, Azure CI/CD pipelines, and secure cloud architecture
- **Technical Adaptability:** Versatile across languages (Python, Java, Kotlin, C#) and comfortable picking up new tools quickly

EXTRACURRICULAR ACTIVITIES & ACHIEVEMENTS

- National Citizen Service (2019): Contributed to team-led fundraising and a community garden renovation project. Gained experience in planning, communication, and project coordination
- Hartlepool Sea Cadets: Completed an Armed Cadet Camp, developing leadership, teamwork, and field discipline
- Kickboxing: Achieved black belt - demonstrates resilience, focus, and long-term commitment
- Fitness: Regular gym attendance, maintaining a disciplined routine for good physical health
- Cricket: Represented school in competitive team matches, showcasing teamwork and strategic thinking