

Joe Baker

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Profile

I am a software engineer with first class honours in software engineering from Bournemouth University, and have been working on Air Traffic Control training simulation software in both my placement and graduate roles. Previous experience includes maintaining a legacy ATC simulation C++ codebase, and developing supporting tools in Python and C#. I have a strong foundation in object-oriented design, testing, and debugging in complex systems, and thanks to university and personal projects, also have experience across Java, Kotlin, and Web technologies.

Currently, am looking to continue developing my skills as a software engineer, contributing to meaningful projects while expanding my experience with different technologies.

Experience

Software Engineer @ Micro Nav (2023-Present)

Graduate Software Engineer: 2025-Present

Software Engineering Placement: 2023-2024

- Developed an internal automated testing tool, in Python, used to during the creation and execution of nightly regression tests while on the Validation team.
- Investigated and fixed bugs and errors, ranging from minor to critical, across the companies C++ Air Traffic Control simulation software suite while on the Maintenance team.
- After returning to University, was awarded Highly Commended for outstanding performance and contribution while on placement.

Education

Bournemouth University (2021-2025)

BSc (Hons) Software Engineering. Achieving first class honours.

- Dissertation & Final Year Project (2025): using Kotlin and Python, developed a Pedestrian Navigation App which focused on the safety of provided routes, receiving a 80% grade.
- Ubiquitous Computing (2024): using React Native, developed a QR/Barcode Scanner App receiving 95% and a Surf Forecast app receiving 90%.
- Application Programming (2023): using Kotlin, developed a Battleships App, getting a 92% grade.
- Web Programming (2022): using PHP and JavaScript, developed an eCommerce website, with a 91% grade.
- Application of Programming Principles (2022): using Python and JavaScript, created an eBook library website with REST API, receiving a 100% grade.

Brockenhurst College (2019-2021)

BTEC Level 3 Extended Diploma in IT at grade D*D*D* (Triple Distinction Star)

Technical Skills

- **Programming Languages:** Python, C++, Java, Kotlin, HTML, JavaScript, C#, PHP, and SQL
- **Design & Architecture:** OOP (Object Oriented Programming), UML (Unified Modeling Language), REST API (Representational State Transfer API), MVC (Model View Controller), EDA (Event-Driven Architecture)
- **Platforms:** Android, Linux, Windows, and Embedded Systems
- **Software:** Docker, Git, MS Office, VirtualBox, and various IDEs including Android Studio, Embarcadero Builder, Visual Studio, and VS Code

General Skills

- **Problem Solving:** Diagnosed and resolved critical C++ software issues and bugs, improving system usability and stability.
- **Teamwork:** Collaborated with others both at Micro Nav and in university group projects, to share responsibilities and workloads, support teammates, and resolve issues, to achieve success.
- **Communication:** Presented updates and technical documentation while at Micro Nav and during university projects.

References

Available upon request