Harry Foster

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Profile

Computer Science student at the University of Manchester (First Class, 79%) with a strong foundation in full-stack development, game programming, and mobile apps. Proficient in Python, C#, JavaScript, and modern frameworks like React, Node.js, and Flutter. Passionate about building real-world, user-focused software.

Education

University of Manchester *Manchester, England*
Bachelor of Science in Computer Science (Expected June 2027) *Sep. 2024 – Present*

- Achieved **First Class (79%)** in First-Year Examinations.

Bury Grammar School *Bury, England*
*A Levels: **A*** Computer Science, **A** Maths, **A** Further Maths, **A** Physics; EPQ: **A**** *Sep. 2022 – Aug. 2024*

JESS Dubai / King's College Murcia *Dubai, UAE / Murcia, Spain*
*11 GCSEs including Maths (**9**), Computer Science (**9**), Further Maths (**8**)* *Sep. 2019 – June 2022*

Project Experience

AttendEase - A web-based Attendance management system Sep. 2024 - April 2025

- Developed AttendEase, a web-based attendance management system using PHP, MySQL, and Bootstrap, for tracking student attendance.
- Implemented geolocation-based attendance with a backup live rolling-code system for reliable tracking, even without location services.
- Designed role-based access control for four user roles: Student, Lecturer, GTA, and Admin, with customized permissions.
- Created a calendar interface for managing attendance records, scheduled classes, and upcoming lectures.
- Enabled light and dark theme modes, along with a leaderboard system to encourage student participation.
- Provided detailed attendance and performance statistics for students and lecturers to track progress.
- Source code and project details available at GitHub Repository.

Chess Engine - Chess Engine and WPF GUI Sep. 2023 - April 2024

- Developed a chess engine in C# as part of the A-Level NEA, implementing move generation, position evaluation, and game state management.
- Designed a WPF-based frontend to visualize the chessboard, game moves, and provide an intuitive user interface for interaction.
- Implemented a Minimax algorithm with Alpha-Beta pruning to enhance the AI's decision-making and optimize gameplay.
- Integrated a user-friendly interface with real-time move validation and an opening book, improving the engine's overall performance and gameplay experience.
- Source code and project details available at GitHub Repository.

Mario Clone - Classic Mario Clone in C# Nov. 2023 - Feb. 2024

- Developed a single-level Mario clone in C#, recreating core mechanics such as platforming, jumping, and enemy interactions.
- Designed the game with sprite-based graphics and tile maps, utilizing C# for game logic and rendering.
- Implemented physics and collision detection for player movement, jump mechanics, and interaction with game objects.
- Created dynamic level elements, including moving platforms and collectible items to enhance gameplay.
- Integrated sound effects and background music to improve the overall gaming experience.
- Source code and project details available at GitHub Repository.

Technical Skills

Languages: Python, C, C++, C#, Java, JavaScript, TypeScript, Dart, SQL, PHP, HTML, CSS

Frameworks & Libraries: React, Next.js, Flutter, Bootstrap, Tailwind CSS, Express.js

Tools & Platforms: Git, Docker, Firebase, Supabase, Android Studio, Linux, MySQL, MongoDB