

Joshua Walker

[Portfolio](#) [LinkedIn](#) [GitHub](#)

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Education

Imperial College London

(2022 - current)

MEng Computing course, currently in 3rd year. Achieved **first class honours** in 2nd year

Skills and Interests

Languages and Technologies - Rust, C, C#, Unity, Java, Haskell, Python, JS, HTML, CSS, Git, Latex

Interests - Self-taught guitarist, study art as an optional module, former member of archery club

Work Experience and Volunteering

IC Hack - Europe's largest student-run hackathon, hosted on Imperial College's South Kensington Campus (2023, 2024, 2025)

- **Volunteered** across both days to help secure the premises and cater for the hundreds of participants and industry representatives.
- **Participated** to engage with different sectors of the industry while experiencing the challenge of the hackathon.

In-Comm (formerly Marches Centre of Manufacturing Technology) (2019)

Completed a week's work experience among a group of automotive apprentices, studying engines in a cooperative environment.

Projects

Dill (Group Project) - *Rust, Scala, Tauri, Laminar* (2024)

Built a reactive cross-platform debugger for the parser-combinator library Parsley, utilised in Imperial's group coursework WACC. Implemented the scrum methodology to effectively deliver an app meeting the brief of our supervisor.

Lettuce Eat (Group Project) - *Flutter, Firebase, Dart* (2024)

Studied **Human-Centered Design** with the Royal College of Art in order to build a recipe-based social media Android app for students, using user experience interviews to ensure our product was commercially viable.

Sorts TUI - *Rust* (2024)

Developed an in-terminal utility for visualising sorting algorithms, built as an exercise in understanding algorithmic complexity.

Portfolio Website - *JavaScript, React, CSS* (2024)

Designed and developed my own portfolio website to showcase skills and experience gained through university and solo projects.

WACC (Group Project) - *Rust* (2024)

Built an optimising compiler in Rust using the Chumsky parser library, compiling initially to an internal intermediate representation to allow for code generation into both Arm32 and Intel x86-64 assembly code.

Pintos (Group Project) - *C* (2023)

Extended a simple **operating system** with features such as synchronisation primitives, system calls and virtual memory. Explored foundational concepts of OS architectures and delved into the pre-existing codebase to research their practical implementations.

Weather Wallpaper - *Rust* (2022 - 2024)

Built a command-line **wallpaper engine** that changes a user's desktop wallpaper to reflect local weather, learning the fundamentals of utilising HTTP to access online APIs.

Origame - *Unity, C#* (2022 - 2024)

Developed a 2D puzzle platformer game for A-Level coursework - attained an **A/A*** grade and expanded further after submission.

Painball - *Unity, C#* (2021)

Pinball game developed in 7 days for the 2021 Ludwig Jam. The theme of the jam was Foddian; participants were tasked with creating a game which emulates the frustration of popular Bennett Foddy games.