# Joshua Walker

Acton, London, W3 8LU

Portfolio LinkedIn GitHub josh.ja.walker@outlook.com +44 7572224173

#### 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 (Team Leader - 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 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.