

JOSEPH HALFPENNY

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Introduction

Enthusiastic computer science postgraduate and skilled full-stack developer with expertise in **Python, Flask, Django, JavaScript, and React.js**. Experienced in designing and managing databases using **SQL** and **PostgreSQL**, and in developing **RESTful APIs**. Proficient in **Agile methodologies** and version control with **Git**. A strong communicator and project manager, aiming to deliver impactful software solutions.

Education

2.2 BSc Computer Science | University of Leeds | Sep 2020 - Jul 2023

- **Dissertation:** Implementation and complexity testing on comparability graph recognition algorithms in **Java**.
- **Coursework:** Designed full-stack systems using **Python** frameworks (**Flask, Django**), **SQLite, PostgreSQL** and **JavaScript**.
- **Qualification:** Completed **The Complete Full-Stack Web Development Bootcamp**.

A-Levels | Graveney Sixth Form | Sep 2016 - Jul 2018

- **Grades:** French A, Maths B, Physics B, Chemistry C.
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Skills

- **Programming & Development:** Python, Flask, Django, Javascript, React.js, full-stack.
 - **Databases:** SQL, PostgreSQL design and management.
 - **APIs & Web Services:** RESTful API design and development.
 - **Tools & Practices:** Agile methodologies, Git.
 - **Soft Skills:** Eloquent communication, rapid understanding of others ideas, disciplined project management, adaptable problem-solving.
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Projects

Family Tree Application | May 2025 - Current

Designed and developed a full-stack family tree application. Frontend with React and React Flow for interactive family tree visualisation. Backend is a Flask RESTful API with a strong focus on efficient database querying and function design. Architected the database schema and used Git for version control.

Lime Bike Application | Apr 2022 - Jun 2022

Collaborated in a team of six to design and implement a full-stack application replicating core Lime Bike functionality. Followed Agile methodology with iterative requirements gathering, backlog management, and task allocation to ensure efficient implementation and smooth workflow. Key features included user authentication, Stripe card payments, real-time bike booking with timers to release reservations, and booking clash prevention. Developed the frontend using JavaScript, HTML5, CSS, and Bootstrap, while the backend was built with Flask and a dummy database.

Languages & Interests

Languages: English (Native), French (Fluent), Spanish (Upper intermediate).

Interests: Football, tennis, cooking, embroidery, reading, music, cinema.