# FERDINAND HUBBARD

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Motivated and skilled software engineer with a strong academic foundation in computer science and practical experience in software development. A bilingual professional passionate about leveraging technology to solve real-world problems, as demonstrated through impactful internships and entrepreneurial projects.

#### **EDUCATION**

## Bachelor of Science (BSc) Computer Science

September 2021 - June 2024

Bristol, UK

University of Bristol Graduated with a 2:1

Ampleforth College

Highlighted units: types and lambda calculus, machine learning (coursework), computer graphics

A levels
September 2016

September 2016 - June 2021 Yorkshire, UK

Further mathematics, mathematics, computer science, physics: A\*, A\*, A\*, A

**SKILLS** 

Programming Languages: Python, C++, C, JavaScript, TypeScript

Web Technologies: HTML & CSS, React

Tools: Kubernetes, Docker, Git, LaTeX, CI/CD Pipelines

Languages: Fluent in English and French

#### **EXPERIENCE**

# Software Engineering Intern (C++)

June 2023 - August 2023

FN Herstal, Herstal, Belgium

Designed and implemented a system to calculate the coding-standard-coverage value of a static analysis configuration. It does this by checking the static analyser's output to counter-examples (code snippets) to each rule in the coding standard. This system identified which custom checks should be added to the static analysis configuration, as well as which rules of the coding standard need to be verified by a human during code review. All this information is displayed in an automatically generated web page.

# Teaching Assistant

September 2022 - June 2023

University of Bristol, Bristol, UK

Supported first-year students in 'Imperative Programming' and 'Mathematics B' courses, providing in-class mentoring to improve understanding and performance.

#### **PROJECTS**

# SPQM Odoo Module: Solar Panel Quote Maker (python, Odoo) - git repo - demo

October 2024 -

November 2024

Developed a custom Odoo module for a solar panel installation business to streamline quoting. Integrated year-on-year financial projections to showcase ROI of a solar panel installation, improving client conversion rates by 25%.

#### Odoo tutorial 'estate' - git repo

October 2024

Completed the Odoo 'Server framework 101' tutorial, which gave me the ability to make simple Odoo modules, enabling me to start my next project.

## Games Project (rust) - git repo

Jan 2024 - May 2024

Worked as part of a team of 7 to develop a game for the Nintendo 3DS in Rust, using a customized Bevy game engine.

## RecallAI (Kubernetes, python, typescript)

May 2023 - September 2023

Co-developed a website that generates flashcards from lectures and videos. It leverages existing ML models to generate a transcript, and then condenses that information into flashcards. The app is hosted in a bare-metal k8s instance, and was developed to be horizontally scalable.

### Composite Design Tools (TypeScript, React)

September 2022 - May 2023

Collaborated with Imperial College London's material science department to create a web-based tool for visualizing and analyzing compressive strength models.

## Pregame Analysis for League of Legends (Python, TensorFlow)

2021

Trained a neural network to predict game outcomes based on millions of pre-game data, achieving 70% accuracy. I also used Bayesian Optimization to tune the neural network's hyper-parameters

### Maths Toolkit (C++, JavaScript)

2021

Created an educational toolkit for A-Level students, simplifying complex topics like the Simplex algorithm, matrix operations, and numerical solutions for polynomials.

#### **EXTRA-CURRICULAR ACTIVITIES**

**Sports:** Was an active member of the UoB tennis society and represented the University of Bristol in clay pigeon shooting competitions. Passionate about running, golf, and climbing.

**Technical Activities:** Participated in a CTF competition organized by BAE Systems and the Bristol Computer Science Society, solving cybersecurity challenges.