# SOPHIE THOMPSON

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## **EDUCATION**

2018 - 2022 | Imperial College London

MEng Computing

- Year 2: First-class honours with 84% in lab projects and 82% in Software Engineering Design
- Year 1: Upper Second class honours with 88% in Mathematical Methods

2011 - 2018 | Westcliff High School for Girls

Sixth Form, and Secondary School

• A Level: A\*A\*A\* in Maths, Further Maths, Chemistry, and Physics

#### WORK EXPERIENCE

2020 | American Express

Software Engineer Summer Intern

In a team of 7 we worked on a microservice in MARS (Modern Accounts Receivable Service), implemented in **Java** using **Spring**. The microservice was testing using **Chaos Engineering**, we killed pods and tested that the services continued to work as usual. During my time at AmEx we completed 2 sprints, for a sprint I acted as Product Owner within our team. Being Product Owner meant taking on a leader role and monitoring the team's progress and effectiveness. Throughout my sprint as Product Owner I demoed and presented our product to large groups of people.

## **PROJECTS**

2020 Unicompare

Python

In a group of 4 we developed a webapp for prospective university students to compare universities in both social and academic aspects. The webapp was mainly **Python** using **Django** and some **HTML**, **CSS** and **Javascript**. In the webapp the user gets directed to a quiz that asks what is important to them. Universities are then ranked based off of this information, the user is given a shortlist of 5. The webapp was developed through numerous design iterations with multiple stakeholders. In this project we used **Postgresql** for the database and **Heroku** for deployment.

2020 Optimising Compiler

Java, ARM

A compiler for the simplified language WACC. This compiler was written in **Java** and is capable of translating WACC into ARM assembly code that can then run, giving the desired output of the program. We expanded the basic compiler to include overloading variables and functions (based on parameters and/or return types). Optimisations include constant evaluation and control flow.

2019 | **Pintos** 

During this project we built on **legacy code** to build an OS that implements a scheduler, system calls and virtual memory.

2019 | Terminal Squares

Java

This game you get points by making squares. I made the game with gameplay options and an option of 2 human players or playing against a custom built AI.

2019 | ARM Project

C, ARM

An assembler and dissassembler in  $\mathbb{C}$ , writing some assembly code that was then run on our disassembler. Followed by an extension using a Raspberry Pi to make a binary numbers game.

### SKILLS & INTERESTS

Programming

Comfortable with Python, C and Java. Various amount of experience in Haskell and C#. Comfortable with tools such as version control and CI/CD also with markup language LaTeX.

Web Based

Comfortable with HTML, CSS and some experience in Javascript.

Ten-Pin Bowling Have competed internationally both independently and as part of Team England. In 2018 became double European Champion collecting 2 golds and a silver in the European Youth Championships in Denmark. During my time bowling have acted as team captain in multiple teams.