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*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 one of them 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** C

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 **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 Java, C and Python. Some experience with 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. Acted as team captain in multiple teams during my bowling career.