TABITHA GOLDMAN

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EDUCATION

Imperial College London
Undergraduate degree: BEng Joint Mathematics and Computing

📅 Sep 2019 – Ongoing

Currently in third year of study. Modules include Simulation and Modelling, Stochastic Simulation, Tensor Calculus and General Relativity and Robotics. Achieved a 2:1 in first and second year.

King's College London Mathematics School
Sixth Form

📅 Sep 2017 – Jul 2019

A-levels: A* A* A (Mathematics, Further Mathematics, Physics)
Other: Computer Science (AS) A, Step I 1

PROJECTS

GPqUeue
Created a self-hosted platform for AI researchers to share GPUs efficiently and schedule the execution of their scripts (Grade: 75% - A*)

📅 May 2021 - Jun 2021

WACC Compiler
Created a compiler for WACC, a simple variant on the While family of languages, using Kotlin (Grade: 98% - A*)

📅 Jan 2021 - Mar 2021

PintOS
Implemented core features of a bare-bones operating system (Grade: 81% - A*)

📅 Oct 2020 - Nov 2020

- Implemented a BSD scheduler and priority donation for kernel threads
- Implemented loading and running user programs
- Analysed implementation in order to reflect on design choices in a written report

Music Generation Algorithm
Generated MIDI files locally similar to an input file using constraint solving (Grade: 85% - A*)

📅 Jun 2020

- Implemented the Wave Function Collapse algorithm in C
- Applied algorithm to MIDI files
- Wrote a detailed report and presentation about the implementation

C Assembler and Emulator
Wrote an Assembler and Emulator in C for a subset of the ARM instruction set architecture (Grade: 91% - A*)

📅 Jun 2020

- Developed knowledge of Version Control through group work

Dyson Cafeteria: Queue Modelling Project
Wrote a report detailing recommendations for more efficient lunch queue systems for Dyson (Grade: Distinction)

📅 Nov 2017 - Jun 2018

- Researched efficiency of different types of queues
- Modelled queues in Python using SimPy
- Presented findings in front of a large audience of students, teachers and industry professionals

ACHIEVEMENTS

🏆 **IC Hello World Hack 21**
Winner of Netcraft's 'Most innovative use of the web' category.

🏆 **Commendation medal in the 2018 Singapore International Mathematics Challenge (a mathematical modelling competition) representing the UK.**

🏆 **Olympiads:**
Distinction in the 2018 UKMT Mathematics Olympiad for Girls. Competed in the 2019 UKMT British Mathematical Olympiad. Bronze (I) in the 2017 British Physics Olympiad.

🏆 **1st in Mathsbombe 2019**
National mathematical problem solving competition run by Manchester University

WORK EXPERIENCE AND INSIGHT

Software Development Engineering Intern at Expedia Group 2021
Extracted a service from a larger repository in order to replace it with an AWS Lambda, and then integrated it into a new architecture. Also made front end improvements to aid accessibility on live services. Developed documentation for the services I worked on.

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Curriculum X Teacher at KCLMS 2021-2022
The first alumni to plan and deliver a super-curricular course at KCLMS. The course is focused on functional programming through exploration of the language Haskell. Also assisting in teaching a similar graph theory based course.
MAN Group 2019
Attended an insight day at the MAN Group London office.
London Underground 2018
Learnt about a variety of optimisation issues affecting Victoria Station and the Victoria Line and observed operations in the control room at Victoria.
XTX Markets 2018
Visited the XTX Markets London office and learnt about the work carried out by their quantitative researchers.
Headstart Summer School 2018
Youth Leadership 2015 - present

SKILLS

Languages: Haskell, Python, Java, C, ASM, Kotlin

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Software: LaTeX, Git, ANTLR, React, Flask, Redis, Docker, AWS

OTHER INTERESTS

Saxophone   Climbing   Concerts