

Hannah Cusworth

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PROJECTS

Job Manager



This is a job management web application that I built for my Dad who works as a locksmith. He needed a way of collecting and organising the details of his clients, addresses and job descriptions in one place.

[Source Code](#)

[Demo](#)

- Clients can submit their contact information, address details and job description.
- All job details are fully editable and searchable
- Relational data can be explored in an intuitive way.
- All server-side functionality is fully tested (test suite of 90+ unit tests).

Maze Generation Visualiser



Inspired by a [blog post](#) by Mike Bostock about visualisation as a tool for understanding algorithms, I have created my own interactive visualisations of maze generation algorithms using Pygame.

[Source Code](#)

[Demo](#)

- Algorithms have been adapted to aid visualisation: sets are assigned colours and recursive algorithms have been implemented iteratively.
- User can set the speed, grid size and direction bias.

CS COURSES

CS50's Introduction to Computer Science (HarvardX Online)



"Introduction to the intellectual enterprises of computer science and the art of programming. This course teaches students how to think algorithmically and solve problems efficiently."

Topics: Abstraction, data structures, algorithms, resource management, security, encapsulation.

[Problem Set Solutions](#)

[Syllabus](#)

EDUCATION

2018 – 2019 University of St Andrews

MLitt in Modern History (Merit)

2014 – 2018 University of Cambridge

BA (Hons) Law and History (First)

2012 – 2014 Wilmslow High School

A Levels: History, Maths, Chemistry, English Lit (A*AAA)

COMMUNICATION & COLLABORATION

- **Tutor, Explore Learning Hillsborough (Jan 2020 – present)**
I Tutor children aged 4-15 English and Maths, both online and in person. I have experience working as a part of a virtual team and being managed remotely.
- **Guest Experience Assistant, St Andrews Botanic Gardens (March – Aug 2019)**
Responded to enquiries by phone, in person, and by email from members of the public and other organisations. Managed and supported volunteers that ran our Butterfly House. Often worked alone on weekend shifts where I was the primary member of staff.
- **Master's Thesis (Aug 2019)**
Excellent written communication skills. Received a distinction for my master's thesis: 'Paris of the East: Tbilisi/Tiflis and the construction of the modern art world in Independent Menshevik Georgia.'
- **Research Intern, Centre for Equity Studies, New Delhi (June – Sept 2016)**
Two-month internship at Indian NGO. Produced research on secularism in the Indian Constitution using online archives. Contributed to housing discrimination project by researching historical migration patterns and residential segregation in Delhi and Mumbai.

References are available on request.