

SAMUEL FELTON

A Software Developer passionate about intelligent web apps, a detailed and intuitive approach to UX & system design, and learning from experienced peers.

Personal Information

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Portfolio samfeltip.github.io

Programming Experience

Python

3 Years

Javascript

4 Years

Haskell

2 Years

Ruby & Ruby on Rails

3 Years

VBScript & ASP

2 Years

Java

1 Year

Education

**University of Sheffield – MCOMP
Computer Science**

September 2019 - June 2023

Event Management System

Used **Figma** to design and develop an accessible event management system. Used **Ruby on Rails** and **PostgreSQL** to implement with a team of developers.

Used **RSpec Unit tests** and **Usability Testing** to test and revise the system.

Dissertation: Identifying Potentially Idiomatic Expressions

Compared a state-of-the-art **transformer based language model** to an expert knowledge based model for **identifying idiomatic phrases** to evaluate their ability to represent idiomatic language.

Police Case Management Web App

Built a dummy police case collaboration web app to demonstrate an understanding of **MongoDB** and **NodeJS** with a team of developers.

Modelling disease spread in rabbit populations

Developed an **agent based model** using **python** to simulate the consequences of rabbit culling during a myxomatosis outbreak.

Wrote a report analysing variations in initial population size, mortality rates and methods of tactical culling and its effect on population stability **with a group of researchers**.

Work Experience

**University of Sheffield - PGR Progression
Monitoring System Developer**

July 2021 - March 2023

Post Graduate Report System

Used **Ruby on Rails** and **agile development** to design, develop, and deploy a comprehensive **form creation and distribution website** to monitor PhD students and academic supervisors.

This service is used by many departments within the **University of Sheffield Engineering Faculty**, and was handed over to TUoS Research Services to become a **university wide system**.

SystemServe - Part-Time Web Developer

July 2019 - Present

Google Maps Webpage

Worked with a small team to design and develop mapping software on the **Google Maps API Platform**.

Developed an algorithm in **JavaScript** to appropriately present densely clustered map markers to make the maps more legible.

Graphical Representation of Databases

Wrote and implemented a recursive algorithm to convert XDT expressions of data structures into graphical representations using **JavaScript** and **VBScript**.

Used VBScript to create a tool to define these structures, so a graphical representation of any data structure could assist a developer when viewing and editing their web apps.

Diocese of Winchester Inventory Database

Translated a large inventory dataset from a flat-file database into a custom **SQL Server relational database**.

Developed an import routine with **VBScript** and **SQL queries** to transfer five years of data into the new database.

Global Engineering Challenge

Collaborated with a group of engineering students to develop a mock **mobile application** for disease spread monitoring.

Presented this application and was **awarded** "Best Communicated Solution" and "The Dr Trish Murray Professional Behaviours Team Award".

Colchester Sixth Form College

September 2017 - June 2019

A-Level Computer Science: A

A-Level Electronics: A*

A-Level Mathematics: A

Philip Morant School and College

September 2012 - June 2017

12 GCSEs from A*-C including Grade 8 in Mathematics and Grade 7 in English Language.

Offline Webpage Research and Development

R&D into offline webpages, and constructed pages to demonstrate the capabilities of **service workers** in **JavaScript**.

Taught other employees how to implement these features in their own pages.

Diocese of Salisbury Automated Application System

Designed and built HTML forms for the application, vetting, and approval of new school governors, for the diocese of Salisbury.

University of Sheffield - Student Demonstrator

September 2021 - December 2021

Assisted 2nd year computer science students in their **Haskell** programming assignment.

Provided insight and **experience** with the **Haskell** programming language to help students find solutions for their projects.

Colchester Sixth Form College - Part-time Electronics Technician

October 2018 - June 2019

Repaired broken PC-microchip interface devices.

Taught first-year electronics students how to properly use the department's facilities.

Stock Management for the department and the student's end of year engineering projects.

Extracurricular Activities

Computer Science Society Secretary

2022/23

Lead a subcommittee to organise and host a 3 day game jam, where society members attended to win **prizes awarded by society sponsors**.

Elected to co-ordinate meetings, manage emails and organise society events for the Sheffield Computer Science Society

National Citizenship Service

2017

Worked with a group of young adults to help renovate a local scout hut and rebuild their campfire facilities.

Rockscool Grade 6: Electric Guitar

2017

Trinity College London Grade 5: Drum Kit

2015

Personal Projects

Wordle Solver

2021

Used **python** to build a script to solve riddles on the NYTimes website Wordle by applying knowledge of **Regular Expressions**.

Arduino

2019

Designed and built a miniature arcade machine using **Arduino** and the **Adafruit_NeoMatrix** Library.

P5.js

2018

Developed many games and personal projects using **JavaScript**, **HTML** and the **P5.js** graphics library.

Personal Qualities

Focused on establishing strong relationships with team members.

Passionate about deep, engaging conversation.

Excited to discuss alternative opinions and perspectives

Enthusiastic about board games.