# DANIEL BATCHFORD

### **Bsc Computer Science 2nd Year Student**

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- github.com/danielbatchford
- **Q** London, UK



## WORK EXPERIENCE

### Sainsbury's

#### **Data Assistant**

In this role I managed and upgraded Excel sheets, implementing conditional lookup functions, as well as filtering and formatting CSV data in Python, aiding the retail team by producing easier to use Excel structures. I also collected and compared pricing data across competing supermarket retailers, presenting the data in a suitable format.

April 2018 (1 Week)

**♀** London, UK

# **INDUSTRY PROJECTS**

### King's Certificate

#### King's College London Mathematics School

Industry collaboration project with Arbor, a statistical company aimed at providing insights into educational data. Worked in a small team to produce a GUI implementation of a statistical tool used to group multi - academy schools into groupings based off specific data about an academy. This was concluded with a presentation to Arbor and a journal article.

**◊** London, UK

# **EDUCATION**

### BSC Computer Science

#### University of Birmingham

Ctober 2020 - Present

Birmingham, UK

### A Level Study

### Kings College London Mathematics School

A\* - Further Mathematics

A\* - Mathematics

A\* - Physics

A - Computer Science (AS)

**Q** London, UK

### Secondary Study

#### **Farringtons School**

GCSE - 7A\* 4A

## September 2005 - July 2017

**♀** Bromley, UK

# **ABOUT**

I am a second year Computer Science student at the University of Birmingham. I have a strong passion for solving technical and algorithmic problems, as well as a significant interest in GUI development in mobile and desktop applications.

# **STRENGTHS**

Mathematical Modelling Python

Java C++

HTML CSS JavaScript Git

# **EMPLOYMENT**

Papa John's (GB) Ltd

#### **Food Delivery Driver**

Delivering food items to customers and collecting and handling payment.

May 2019 - July 2019

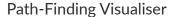
# **CURRENT PROJECTS**

I am currently working on GUI visualisations and controls for common computer science concepts, including path-finding and sorting algorithms, with the aim of making these concepts easy to visualise, understand and learn. I am ambitious to help bring these ideas and fundamental concepts to a wider audience outside the scope of Computer Science, enabling more students to get involved in a future career in the field.

See this work on:

github.com/danielbatchford

# **PERSONAL PROJECTS**



An interactive, path-finding visualiser showing the process of searching algorithms on a 2 dimensional grid containing obstacles.

github.com/danielbatchford/PathFindingVisualiser

### Path-Finding Library

Lightweight Java pathfinding library implementing common path-finding algorithms on a 2d grid.

github.com/danielbatchford/PathFinding

### Sorting Algorithm Tester

Javascript based website display various sorting algorithm's computing time.

github.com/danielbatchford/SortingTester

#### Snake Game Al

Java snake game AI using A\* pathfinding and Processing GUI.

github.com/danielbatchford/SnakeAl

## Multivariate Linear Regression Library

A multivariate linear regression library to perform binary classification on N-variable datasets.

github.com/danielbatchford/MultivariateLinearRegression

#### Virus Simulation

Virus simulation model using Java and SIR Model of virus spread.

github.com/danielbatchford/VirusSimulation