

## PERSONAL SUMMARY

A committed and driven student at the University of Bristol studying mathematics and computer science. Proven written and verbal communication skills developed while working as a teaching assistant. Keen to develop further practical skills in software development to solve problems creatively.

## EDUCATION

- **University of Bristol** Bristol, UK  
*Mathematics & Computer Science MEng* 2019 - 2023
  - **First year:** Passed with mark of 84 (First Class)
  - **Second year:** Passed with mark of 76 (First Class)
- **The Sixth Form College Farnborough** Farnborough, UK  
*A Levels: Mathematics A\*, Further Mathematics A\*, Computer Science A\*, Physics A\** 2017 - 2019
- **Weydon School** Farnham, UK  
*11 GCSEs A\*- A, including Maths and English Language* 2012 - 2017

## SKILLS

**Languages** Python, Java, Haskell, Javascript, HTML, CSS, C, R

**Technologies** Linux, Git, Github, JQuery,  $\text{\LaTeX}$ , Maven, SciKit-learn, Pandas

## EXPERIENCE

- **Teaching Assistant** Bristol, UK  
*University of Bristol Computer Science Department* Sep 2021 - Present
  - Sole charge of teaching weekly problems classes to 2nd year Algorithms students
  - Supporting 2nd years studying Programming Languages & Computation with coding in Haskell and theory problems
- **Committee Member** Bristol, UK  
*University of Bristol Cycling Club* Mar 2020 - Present
  - Collaborated with others to organize and promote cycling events for University students
  - Contributing to club discussions on inclusivity within the sport
  - Helped to run club rides for members, complying with Covid rules, introducing new members to safe cycling in groups.

## PROJECTS & COURSEWORK

- **3D Printing DLP Post Slice Supporter Group Project** github.com/JonathanMarriott/3DPrinting  
*Analyses sliced 3D models for unsupported areas and inserts supports for them*
  - I implemented multi-threading in the Java based application using OpenCV Libraries to process large files over 3x faster than the sequential version
  - Developed within an agile team of 5 people, using git branching and merging to manage feature development
- **Quiz Website Coursework** github.com/JonathanMarriott/QuizCoursework  
*Individual project creating a website to serve quizzes to users*
  - Implemented the quiz application backend in Java using an MVC architecture with an SQL database.
  - Webapp frontend developed using the Bootstrap framework to create a modern interactive interface
- **Data Analysis Individual Project** github.com/JonathanMarriott/DataDrivenCS  
*Data Driven Computer Science Labs and Coursework*
  - Used Scikit-Learn and NumPy libraries to implement maximum likelihood estimates, linear and non-linear least squares regression in practical examples. In addition to implementing some supervised and unsupervised learning models.
- **Percolation Theory Research Project**  
*Individual research project on random graph percolation*
  - Ongoing project involving reading current research literature for percolation, and proving results about critical phenomenon and phase transitions
  - Researching the applications of percolation theory to information flow through social networks and understanding the active paths through neural networks

## ACHIEVEMENTS & INTERESTS

**Duke of Edinburgh Gold, Silver & Bronze Awards** All Completed

**ITC Level 3 Outdoor First Aid** Qualified

**Road Cycling** Keen recreational cyclist who enjoys competing in time trial events

**Electric Guitar** Avid player for over 4 years