

William Cooper

Online Portfolio

EDUCATION

The University of Manchester

Manchester, UK

- **Master of Physics** - *Physics with Astrophysics*; Obtained degree: **2:1** *September 2019 - June 2023*
[MPhys (Hons) - Second Class, Division One]
Relevant Courses: Object-Orientated Programming in C++ (86%), Introduction to Programming for Physicists (69%), Various Physics Laboratories involving Data Analysis (72% overall).

Bradford Grammar School

Bradford, UK

- *A levels: Art, Math, Physics; A* AA* *September 2013 - June 2019*
GCSEs: 10(5A, 2A, B, 2C) including Maths and Computer Science*

SKILLS SUMMARY

- **Languages:** Python, C++, LaTeX, HTML, C#
- **IT:** Microsoft Word, Excel, Powerpoint, Visual Studio Code, Spyder, *GitHub*
- **Platforms:** Linux, Windows, MacOS
- **Soft Skills:** Report Writing, Time Management, Presentations, Team Work, Project Management

PROJECTS

- **High Redshift Galaxy Groups in Cosmological Hydrodynamic Simulations (Data analysis, Python):**
(Research-oriented, master project analysing massive galaxy clusters from a large simulated data set. The project is in collaboration with my project partner, I took a leadership role by proposing and designating the work. (September '23)
 - Data analysis, including organizing and performing selection cuts on data.
 - Conducted independent research to achieve a deeper understanding of the project.
 - Report writing in LaTeX to outline the successful results achieved.
 - Presentation to professor with knowledge of the field to present the methods used and to summarise results.
 - Used GitHub to ensure backup of important data and to collaborate work with project partner.
 - Assisted my project partners' understanding of Python to increase project efficiency.
- **Monopoly Computer Game (C++):** Independent object-orientated programming project using a graphical user interface. (May '22)
 - Report writing describing my progress and thought process during the project alongside the successful outcome.
 - Research beyond the course on how to integrate and program a graphical user interface for ease of use.

VOLUNTEER EXPERIENCE

Dewsbury Minster

Dewsbury, UK

- *Cafe Worker, multiple roles* *2016/17*
 - Worked in a team of 5 where communication was key.
 - Served the local public, including free meals for the homeless.
 - Worked flexibly between serving and taking orders to washing up, meeting customer needs at busy times.
 - I started to obtain my Duke of Edinburgh bronze award but continued after the required hours.

INTERESTS

I am a member of the Physics and Board Game societies at university and enjoy fitness and sports such as skiing, mountain biking, and tennis. Art is also a passion and hobby. My hyper-realistic paintings and drawings visually show my sharp attention to detail. My genuine desire for learning and proficiency in programming allows me to excel in problem-solving tasks. I have taken many programming courses during my academic career but I also enjoy game development in my spare time. Web development is currently a new area of interest for me, after taken online courses I created my own website to host my online portfolio which is hyperlinked at the top. I am now seeking a job opportunity that will enable me to expand my horizons and further develop my skillset.

References available on request