WILLIAM MANLEY

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OVERVIEW

Excited by the opportunity for employing his mathematical creativity in solving novel problems. A diligent and motivated undergraduate mathematician who has developed an appreciation for a variety of fields in mathematics. A proven, effective communicator, who enjoys the opportunity of working both independently and collaboratively.

EDUCATION

University of Oxford　　　　　　　　　　　　　　　　　　October 2020 - June 2020
MSc - Mathematical Sciences　　　　　　　　　　　　　　　　　　　　　　*Oxford, UK*

University of Bath　　　　　　　　　　　　　　　　September 2017 - June 2020
BSc - Mathematics (hons)　　　　　　　　　　　　　　　　　　　　　　　*Bath, UK*

· Predicted Outcome: First Class
· 1st Year Average: 71.8%
· 2nd Year Average: 78.6%

Petroc (Mid-Devon Campus)　　　　　　　　　　　　September 2015 - July 2017
A-Levels　　　　　　　　　　　　　　　　　　　　　　　　　　　　　*Tiverton, UK*

· Mathematics: A*, Further Mathematics: A, Chemistry: B, Biology (AS): A
· Advanced Extension Award (AEA) in Mathematics: Merit

RELEVANT EXPERIENCE

Micron, University of Oxford　　　　　　　　　　　　June 2019 - August 2019
Research Intern　　　　　　　　　　　　　　　　　　　　　　　　　　*Oxford, UK*

During the summer of 2019, I worked at the University of Oxford as a research intern as part of the UNIQ+ programme. I worked in the biochemistry department, under supervision of the Micron research group. During my time here, I worked on programming a microscopy imaging platform called *MicroscoPi*. The aim of my project was to develop and apply 3D printed hardware to motorise and run the *MicroscoPi* platform, and to produce an auto-focusing algorithm, implementing the process into an existing GUI to fully automate the process.

· **Technical Skills:** undertook a two week intensive software engineering course, including: programming in Python, version control with Git and an introduction to machine learning, more specifically, my project gave me technical skills in image analysis and an understanding of some of the weaknesses of machine learning in certain contexts. I also was able to apply some familiar mathematical tools such as the Fast Fourier Transform to aid in solving the problem.
· **Collaborative Skills:** working collaboratively in a research environment and gaining an insight into the dynamic of working in a research team. I also completed a scientific report detailing my exact progress and any problems that still needed to be addressed for the benefit of future collaborators.
· **Presentation Skills:** I gave two presentations of my research. One to the academics within my department and another to the organisers and fellow members of the UNIQ+ programme.

- **Research Skills:** conducting research in an area that I previously had little experience in, and being able to learn new ideas quickly. I also gained valuable skills in working independently and the ability for sustained intense work ethic to complete a project in limited time.

AWARDS & RECOGNITION

University of Bath Gold Scholarship
University of Bath
September 2017 - June 2021

I was awarded a scholarship that is given out to roughly 50 new students to the University of Bath each year. As part of the programme, I attend skills training sessions, conduct at least 50 hours of volunteering/fundraising/outreach work over each academic year, organise meetings, present in front of large audiences, attend networking events and represent the university at various events. This has allowed me to develop important skills including independence, organisational responsibilities, presentation skills and communication skills.

Overall Academic Achievement for A-Levels
Petroc College
September 2015 - July 2017

Mostly self-taught 2nd year of A-Levels due to lack of college funding/teaching availability and personal circumstances. This shows my maturity and independence, as well as, a resilience to continually apply myself to something that I enjoy doing.

IMA Student Member
The Institute of Mathematics & it's Applications
2019-Present

I recently became a student member of the IMA. I am planning on attending some upcoming conferences that are suitable for students.

CONTINUOUS DEVELOPMENT

Programming Tutor
University of Bath
October 2019 - May 2020
Bath, UK

I am currently running tutorials for first year mathematics students from the University of Bath in the 'Programming and Discrete Mathematics' module for the duration of this academic year. My responsibilities include: planning ahead for each tutorial, presenting programming in an accessible way, adapting to explain things from a different angle if students are confused and weekly marking responsibilities.

ODSC Europe 2019 Conference
Open Data Science
19th- 22nd November 2019
London, UK

I both volunteered and attended this years Open Data Science Europe 2019 conference in London. This was an invaluable opportunity for me to learn more about the frontiers of data science and machine learning from representatives from world leaders in data science, both from industry and academia. The variety of talks that I attended, gave me an insight into numerous ways in which industries are using data science and machine learning to continue to drive innovation to the next level - towards an *Industry 4.0*.

w.manley