

WILLIAM MANLEY

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OVERVIEW

Excited by the opportunity of employing his mathematical creativity in solving novel problems, with real world applications. A diligent and motivated graduate mathematician who has developed a knowledge and appreciation of a variety of fields within mathematics. A proven, effective communicator, who enjoys the opportunity of working both independently and collaboratively.

EDUCATION

University of Oxford

MSc Mathematical Sciences

October 2020 - June 2021

Oxford, UK

- Specialising in modules with a mathematical/computational background in biological systems.

University of Bath

BSc Mathematics

September 2017 - June 2020

Bath, UK

- First-Class Honours

Petroc

A-levels

September 2015 - July 2017

Tiverton, UK

- Mathematics (A*), Further Mathematics (A), Chemistry (B), Biology (a)

RELEVANT EXPERIENCE

Micron, University of Oxford

Research Internship

June 2019 - August 2019

Oxford, UK

During the summer of 2019, I worked at the University of Oxford as a research intern as part of the UNIQ+ graduate research experience 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*. A detailed description of the project, along with a report and presentation of my work can be found on my website.

- **Technical Skills:** Undertook two week intensive software engineering course, including programming in Python, version control in Git and an introduction to machine learning. Developed technical skills in image analysis and an understanding of some of the weaknesses of machine learning in certain contexts. Was able to apply familiar mathematical tools to aid in solving the problem.
- **Collaborative Skills:** Worked collaboratively in a research environment, gained an insight into the dynamic of working in a research team. Completed scientific report detailing my progress.
- **Presentation Skills:** 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:** Conducted research in an area that I previously had little experience in. Learnt how to learn and apply new ideas quickly. Gained valuable skills in working independently and the ability to maintain sustained intense work ethic to complete a project in limited time.

IMI, University of Bath
Research Internship

June 2020 - September 2020
Bath, UK

During the summer of 2020, I was due to complete a research internship with the Institute for Mathematical Innovation at the University of Bath as. However, due to the impact of COVID-19 the funding and supervision of this opportunity was pulled. I was however particularly interested by the project and decided to work on the project independently. The project involved working with a local structural engineering company and using CFD to assess the impact of turbulent wind flow on a house structure. A detailed description of the project, along with a presentation of my work can be found on my website.

Programming Tutor
University of Bath

October 2019 - May 2020
Bath, UK

Ran tutorials for first year mathematics students from the University of Bath in the 'Programming and Discrete Mathematics' module. Responsibilities included: planning how to best present topics of each tutorial to new students in an accessible way, weekly marking of problem sheets, answering problems that students encountered.

COMPUTATIONAL KNOWLEDGE

Programming Languages
Software & Programming Skills

Python, MATLAB, R, HTML, Bash.
OOP, ML, Data Handling & Visualisation, Git
Image Handling, OpenFOAM, CFD, ParaView.

AWARDS & RECOGNITION

Roche UNIQ+ Graduate Scholarship
Roche

October 2020 - June 2021

I was awarded a scholarship from Roche, a world leading pharmaceutical company to fund my graduate studies at the University of Oxford.

IMA Associate Member
The Institute of Mathematics & its Applications

2019-Present

I am a member of the Institute of Mathematics and its Applications and recently gained associate member status.

University of Bath Gold Scholarship
University of Bath

September 2017 - June 2020

I was awarded a scholarship given out to roughly 50 new students at the University of Bath each year. As part of the programme, I attended skills training sessions, conducted at least 50 hours of volunteering work during each academic year, organised meetings, presented in front of large audiences, attended networking events and represented the university at various events.

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.

w.manley