

MAX WILLIAMS

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EDUCATION

2016-2017 **University of Warwick, MSc Diamond Science & Technology, 1st Class Honours**

2012-2016 **University of Bristol, MSci Chemical Physics, 1st Class Honours**

2010-2012 **Esher College, Esher**
A-levels: Maths (A*) Chemistry (A) Physics (A)

2008-2010 **Hinchley Wood Secondary School, Hinchley Wood**
GCSEs: 5 A*, 6 A, 1 B

EMPLOYMENT HISTORY

- 2017-present **Postgraduate Researcher, School of Chemistry, University of Bristol, UK**
Kinetic Monte Carlo modelling of diamond growth by chemical vapour deposition
- Serial code written in Fortran (2008), version controlled in git and utilising CMake.
 - Data analysis, data processing and input generation using Python 3.
 - Fortran and python knowledge self-taught within self-motivating, self-managed environment.
 - Translation of experimental and theoretical concepts into software for modelling
 - Linux command line, bash scripting, ssh
- Summer 2019 **Junior Developer Intern, Interactive Scientific, Bristol**
- Prepared/converted molecular simulations for VR education tool
 - Contributed to existing tools in AGILE-like environment
 - Outreach with local school children, demonstrating the education tools
- 2018-present **Computational Physics Demonstrator, School of Physics, University of Bristol, UK**
- Assist with conceptualisation of physics concepts for numerical simulation
 - Give assistance and troubleshoot student python code during drop-in sessions
 - Mark and give feedback on submitted code and formal write-ups
- 2013/14 **Volunteering Matters, Heritage Camp Leader**
- Week-long volunteering summer camp for 16-25 year-olds involving cleaning and conservation of churches and cathedrals
 - Responsible for planning and day-to-day running of the camp through liaison with parents, the charity and the venue staff, determining work groups and organising social activities after the working day
 - Flexible leadership style to promote teamwork, enjoyment and inclusion while

maximising productivity and minimising conflict

2012-2018

Tutor, GCSE Maths

- Punctuality, professionalism and lesson structuring to ensure confidence in value for money for parents and effective learning for students
- Time management, organisation and planning to ensure lessons run smoothly with focus on relevant areas

OTHER DEVELOPMENT EXPERIENCE

Fortran

Fortran Open MPI Wrapper Library

Modern software development practices, git workflows, build systems, open mpi

Full Stack

Online submission/processing system for IMPRESSION, ML NMR shift prediction

Flask, google-cloud, docker, databases, web security

Languages

Basic knowledge of C, Java, JavaScript

SKILLS

Driving

Full, clean, driving licence

INTERESTS

Ultimate Frisbee

Playing Ultimate Frisbee competitively with the University of Bristol and City of Bristol teams, representing them at national competitions. I was elected 'Tournament Director' for the 2017/2018 academic year, responsible for planning, organising and running tournaments for the club.

Running

Marathon training 3-times weekly

Chess

Watching professional games, self-study, playing online