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

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
C	Basic knowledge of C

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