# William Rochira BSc, MSc

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Postgraduate research student with a diverse science background and a particular interest in computational methods.

### Education

2021 – Present University of Oxford	DPhil – Biochemistry "Development of Quantum Computing Algorithms to Explore Cyclic Peptides" Supervised by Professor Phil Biggin
2019 – 2020 University of York	MSc by Research – Chemistry "Computational validation of macromolecular structural models" Supervised by Professor Kevin Cowtan and Dr Jon Agirre  Computer Science Fundamentals of Machine Learning; graded first class (93%) Machine Learning & Probabilistic Graphical Models; graded first class (89%)
2016 – 2019 University of York	BSc – Biochemistry "Coarse-grained Monte Carlo simulations to probe confined protein diffusion in the Gramnegative bacterial outer membrane" Research project supervised by Dr. Christoph Baumann; graded first class
2009 – 2016 The King's School, Peterborough	A levels Biology, Chemistry, Physics, Mathematics Grades: AAAA

### Research Experience

2019	Programmatic fitting and analysis of high-noise atomic force microscopy data
University of York	With Dr. Christoph Baumann and Dr. Lotte van Beek

## **Publications**

2020	Iris: interactive all-in-one graphical validation of 3D protein model iterations
University of York	William Rochira and Jon Agirre

## **Professional Experience**

2020	Technical Business Analyst at Acturis Ltd.
2014 – 2020	Software developer and web developer at Traintaxi Ltd.

#### Conferences

June 2022	2nd Oxford-IBM Alliance Symposium – Poster University of Oxford
January 2021	CCP4 Study Weekend – Presented  Virtual Conference
January 2020	CCP4 Study Weekend – Attended  East Midlands Conference Centre
September 2018	CFS/ME Research Collaborative Conference – Attended Future Inn, Bristol

#### Skills

- Exceptionally proficient in Python and JavaScript
- Familiar with C#, C++, C, R, Java, Swift, PHP, Rails, HTML, SQL, and Bash
- Experience with HPC; having written software for YARCC (SGE) and Viking (Slurm) clusters at UoY
- Native English speaker, and fluent in Italian
- See portfolio at wrochira.github.io for more details