Adam R. **Symington**

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Education

University of Bath

BATH, UK

PhD in Computational Chemistry

SEPT. 2016 - DEC. 2019

- Developed computational methodologies and software to improve the analysis of solid state chemistry simulation data.
- Research collaboration with the University of Huddersfield, University of Kent and the University of Central Florida.
- Highly successful project - 9 peer reviewed publications and 5 awards.

University of Bath

Bath, UK

MChem in Chemistry for Drug Discovery

SEPT. 2012 - JUN. 2016

- Degree Classification: **II:I**

Computational Skills

Programming fluency & Software familiarity

Languages Python (Numpy, Pandas, Matplotlib, Scipy), FORTRAN90, HTML, CSS, Shell, Julia

Software Jupyter-Framework, Git and CI

Skills Unix, Bash scripting and basic system administration

Software development

surfinpy surfinpy is an open-source Python library to facilitate the analysis and visualisation of large scale simulation data. surfinpy has been published in the Journal of Open Source Software (Symington et al., J. Open. Source Soft. 4, 1210, 2019).

polypy polypy is an open-source Python library designed to analyse molecular dynamics simulation data. polypy is built to read large datasets associated with molecular dynamics trajectories and from these produce insightful statistical information. polypy has been used in two pieces of peer reviewed research to date.

Employment History

Postdoctoral Research Associate

Bath UK

Faraday Institution / University of Bath

JAN. 2020 - PRESENT

- Developing computational simulation and analysis techniques to aid in the prediction and discovery of new Li-ion battery cathode materials.
- Utilised machine learning models to predict the properties of cathode materials.
- Secured funding to hire a summer intern to assist me with my research.

Postgraduate Research, Computational Chemistry

Bath UK

University of Bath

OCT. 2016 - DEC. 2019

- Computational chemistry project - **Applications** - Energy Materials, Nuclear Waste Remediation, Enviromental Chemistry.
- During this project I ran large scale simulations on materials in order to make predictions about their behaviour and properties.
- This has required the development of bespoke software designed for the specific needs of the project. Full details can be found on my github account (symmy596).

Postgraduate Teaching Assistant

Bath UK

University of Bath

OCT. 2016 - DEC. 2019

- Throughout the duration of my PhD and in my current role I have taught undergraduate chemists how to program, specifically focusing on high level programming in **Python** and low level programming in **Fortran**.
- I developed a new masters level practical course which focused on combining chemistry and Python to allow students to make predictions about the properties of materials.
- Part of an ongoing project to develop a new masters course focusing on teaching students how to use **Python** in data analysis.
- Contributed a series of practical workshops designed to introduce PhD students from throughout the university to Unix, programming, software development, git and CI.

Mathematics for Chemistry Lecturer

Bath UK

University of Bath

SEPT. 2016 - MAR. 2017

- Delivery of workshops in fundamental mathematical concepts for chemists, ensuring that all chemistry first year students had consistent mathematical background.

Interests

- I have played cricket as a member of several clubs since the age of 8. I was the captain of my local club and a coach for the junior divisions.
- I am a keen cyclist in my spare time and in 2018 I participated in a charity cycle between Lands end and Bristol, raising £4000 for the MS society.
- I play golf and worked as a senior golf caddy throughout secondary school and university.