

# Adam Callison

London, United Kingdom

☎ +447512 232 066 | ✉ callison.adam@gmail.com | 🌐 adamcallison.com | 📄 <https://github.com/adamcallison>

## PROFESSIONAL PROFILE

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Computational physicist looking to apply advanced skills in modelling and data analysis to industrially relevant problem solving. Fluent in Python, including NumPy, SciPy, pandas and matplotlib. Learns new tools rapidly. Enjoys teamwork.

## SKILLS

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- Proficient in **Python**, having used it throughout my research for more than 6 years
- Skilled with **NumPy**, **SciPy**, **pandas** and **matplotlib**
- Contributed via **GitHub** to existing Python-based software, including the quimb library
- Experienced with **Linux** systems and **HPC** platforms running various schedulers
- **Technical writing** and publishing of research articles
- **Teaching** and **supervision** of students and junior researchers
- Capable of programming in **FORTRAN**, **C++** and **MATLAB**
- **Collaboration** with colleagues to produce successful research outcomes
- **Communicating** complex ideas to a broad audience with different expertise through conference presentations
- Proficient in **Microsoft Office** software including **Excel**
- Basic **SQL** knowledge, having completed an online course

## CURRENT POSITION

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**Post-doctoral Researcher**, University College London (March 2021 - Present)

- Writing Python (including numpy and scipy) to build numerical simulations of quantum algorithms
- Using pandas and matplotlib to analyse and visualise data for research articles
- Enhance productivity and output by automating the simulations using Python and bash scripts
- Collaborate with other researchers, including with different expertise
- Create new insights in various quantum algorithms through analytical and numerical study
- Supervise an MSc student for a Python-based quantum algorithms project
- Communicate and explain my research in group meetings and give talks at various conferences

## PREVIOUS POSITION

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**PhD Student**, Imperial College London (October 2017 - March 2021)

- Wrote Python for numerical studies of various quantum algorithms on a computing cluster
- Used cloud-based Python interfaces to run algorithms on existing quantum hardware
- Developed innovative quantum approach to solving optimisation problems
- Advanced the theory of a particular quantum computing method
- Supervised summer project students
- Taught Python to undergraduate students

## EDUCATION

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**Imperial College London (September 2016 - September 2017)**

*MRes Controlled Quantum Dynamics: Passed with Distinction*

**University of Surrey (September 2012 - June 2016)**

*MPhys Physics: First Class Honours*

**The King Edmund School (September 2004 - June 2011)**

*A-level: Mathematics (A), Physics (B), Biology (A)*

*GCSE: Physics (A\*), Chemistry (A), Mathematics (A\*), Statistics (A), Biology (A), 7 other A-C Grades*