

Cameron Mackenzie

COMPUTATIONAL CHEMISTRY GRADUATE · ASPIRING SOFTWARE DEVELOPER

07477 604056 | cameron.mackenzie1999@gmail.com | [CameronMackenzie99](https://www.linkedin.com/company/CameronMackenzie99) | [cameron-mackenzie1999](https://www.github.com/cameron-mackenzie1999)

Projects & Self-Directed Learning

Take-home Pay Calculator

Aug 2021 - Present

- Calculator script for tax and national insurance deductions, with configurable currency and tax rates. Exports results to json file.
- Built with Python, using *SOLID design principles* to ensure highly *cohesive* and loosely coupled code. Github is utilised for version control, with *Continuous Integration* (Github Actions) used to *unit test* and lint code upon commit.
- Utilises py-moneyed library, which extends the Decimal library, to handle monetary calculations in a lossless manner.
- Object-oriented principles embodied to allow for future integration with React front-end as a dockerised FastAPI web app.

Self-Directed Learning

UNIVERSITY OF BERKELEY CS61A
COMPSCI ONLINE COURSE

Aug 2021 - Present

- Deep introduction to Python language fundamentals
- How computers interpret programming languages
- Data structures, algorithms, SQL databases

DESIGN PRINCIPLES AND
PROJECT PLANNING

Ongoing

- SOLID design principles for object-oriented programming.
- Incorporated Kanban boards for **agile** methodology planning.

LINKEDIN LEARNING

Mar - Jun 2021

- Learning Python; Advanced Python
- Programming Foundations: Fundamentals; Algorithms

Education

University of York, MChem

York

CHEMISTRY · UPPER SECOND-CLASS HONOURS (2:1)

Sep 2017 - Jun 2021

- **76% in Master's Project:** computational chemistry method development in a commercial setting (**79%** in project execution: planning, time management and delivery of project).
- Presentation of results: lab reports and presentations in academic and **industrial** settings.
- 75% in computational module: matrix transformations and **algorithms**.
- Further Maths module for theoretical physical and statistical chemistry: matrices, imaginary / complex numbers.

Devonport High School for Boys

Plymouth

A LEVELS AND GCSES

2012 - 2017

- A Level AAB: Chemistry (A), Maths (A), Physics (B)
- GCSE 12 A*-C: including 2 A* Chemistry and Physics and 4 A in other STEM subjects (including Maths and Engineering)

Work Experience

Infineum UK

Abingdon, Oxfordshire (Remote)

INDUSTRIAL COMPUTATIONAL CHEMIST · MASTER'S PROJECT

Jan - Jun 2021

- Worked in an **agile** environment, reporting weekly to shareholders to ensure alignment of aims.
- Researched and developed novel chemicals through modelling of complex chemical systems using **quantum simulations**.
- Developed strong problem-solving skills in a computational context, through iteration of model systems and **unit testing**.
- Applied existing knowledge of surface chemistry to an **engineering** context, rapidly learning to deliver on a tight deadline.
- Collaborated on a novel product idea with a diverse international team, which was taken forward.
- Compiled documentation for implementation of new software into workflow. Analysed benefits, potential roadblocks and use cases to maximise resources already available to the R&D team. Presented this idea, alongside project, to 40 colleagues.

TRAINING COURSES

- **Agile** Project Management Course
- Project Planning and Leadership Workshop

Skills

Strong Python, Problem-solving, Presenting, Goal setting, Presenting to stakeholders
Proficient JavaScript, Version Control, Continuous Integration, SOLID Principles, Unit Testing, FastAPI
Learning TypeScript, React, SQL, AWS, Agile Methodology

Other Work Experience

Festival Staff

HAP RECRUITMENT

Southampton

Summer 2019

- High intensity role, communicating and solving logistical problems with colleagues throughout the event.

Waiter

WHO'D HAVE THOUGHT IT INN

Devon

2015 - 2016

- Developed foundations of multitasking and time management skills, helping in the kitchen and often being the only front of house employee providing outstanding customer service.

Extracurricular Activity

President and Treasurer of Coffee Society

UNIVERSITY OF YORK

York

Apr 2019 - Jul 2020

- Operated and led events, achieving society goal of delivering quality coffee to students. Forged business relationship with local roaster.
- Reinvested profits from these events to buy and repair broken equipment, an espresso machine and coffee grinder.

Captain of Esports Team

UNIVERSITY OF YORK

York

Sep 2018 - Jul 2019

- Coordinated practice and developed strategies for team of 5 players, managing player feedback regarding decisions and communication. Analysed performances and coached less experienced players. Finished 4th in inter-university championship.

Assistant Sailing Instructor

WEIR QUAY SAILING CLUB

Devon

2015 - 2017

- Introduced and taught newcomers of all ages, to sailing dinghies. Conducted teaching and risk management in a challenging environment.

Duke of Edinburgh Gold Award

2016

Volunteering

Fundraising Volunteer

HELP FOR HEROES

Devon

2019

- Raised £1800 for Help for Heroes in a small team over the annual Tesco Collection Weekend.

Second / Third Year Contact

UNIVERSITY OF YORK

York

Sep - Dec 2018

- Introduced Freshers students to university life. Ensured their well-being on nights out in the first week and continued to support and signpost them where appropriate.

Interests

Philosophy of the Digital World: Moore's Law, Ethics, Data protection, Dystopian sci-fi

Technology Solutions: Internet of Things, Renewable transport, Improving quality of life through technology

Cooking: Trying new cuisines and techniques from all over the world, organising recipes and meal plans with mobile apps to reduce food waste. Cooking for friends and family!

Cycling and Boulderling: Exploring nature and improving fitness and technique