

# LUCY FILLBROOK

## CAREER PROFILE

A dedicated, innovative researcher with a background in Chemistry and a passion for sustainability. Specialising in data analysis and Python programming, I bring a robust quantitative skill set and a proven ability to solve complex problems.

## PROFESSIONAL EXPERIENCE

04/2023 – Present      **Scientific Consultant**

*Hypercube Scientific – Sydney*

- Advised companies to help optimize business procedures and resource efficiency.
- Conducted mathematical modelling of logistics to create digital twins of businesses, showing skills in data collection, validation and modelling.
- Managed multiple projects within teams working to strict deadlines, demonstrating the ability to prioritize tasks and communicate effectively.
- Prepared presentations for clients, highlighting skills in data visualization.
- Collaborated on simulation and analytical tools using a version management tool (Git).

09/2019 – 09/2023      **PhD Researcher in Chemistry**

*University of New South Wales – Sydney*

- Conducted research on molecular motion in dynamic solutions.
- Awarded the UNSW Scientia PhD Scholarship.
- Developed Python scripts for data analysis and numerical simulations (available on [GitHub](#)), showcasing strong quantitative and problem-solving abilities.
- Collaborated with multidisciplinary teams globally, highlighting the ability to work well in a team and contribute to diverse, international projects.
- Authored 10x scientific papers in high-impact journals (see my [Google Scholar](#)), indicating strong written communication skills.
- Engaged in research exchange with laboratory in the US, demonstrating adaptability and an ability to thrive in new and fast-paced environments.

## VOLUNTEERING EXPERIENCE

10/2022 – Present      **Programming Tutor**

*Girl's Programming Network – Sydney*

- Mentored high school girls in Python programming, demonstrating the ability to communicate complex concepts.

09/2022 – 09/2023      **Laboratory Efficiency Assessment Framework (LEAF) Representative**

*School of Chemistry, University of New South Wales – Sydney*

- Led a research group in sustainable practices (in accordance with [LEAF](#)), showing a passion for decarbonisation and minimising environmental impact.

## EDUCATION

2023    **PhD Candidate (Chemistry)**, University of New South Wales, Australia

2019    **Master of Chemistry (Chemistry with Mathematics)**, University of Southampton, UK

## ADDITIONAL INFORMATION

**Technical skills:** Proficient in Python and Excel, and experience with SQL and HTML.

**References:**      References can be provided on request.

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