Oliver Hagger

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RELEVANT PUBLICATIONS

O. S. J. Hagger et al., Mater. Adv., 2023, 4, 3239-3245

RESEARCH EXPERIENCE & EDUCATION

University College London & DSTL

London, UK

Doctor of Philosophy

September 2021 – Present

- Supervised five MSc research projects in an analytical chemistry module, resulting in an academic paper submission receiving excellence awards.
- Presented at the ISPC25 conference to demonstrate expertise & widen the impact of my research.
- · Achieved highest individual grade on PhD upgrade report, showcasing comprehensive field knowledge.
- Spearheaded laboratory submission for the silver LEAF sustainability award through collaboration with other researchers, extending the efficiency and effectiveness of the laboratory.
- Techniques: 3D printing, Light microscopy, Mass spectrometry, Raman, SEM, SERS, UV-Vis, and XPS

Professor Jerome Robinson Group

Rhode Island, USA

Scientific researcher

June 2019 – September 2019

- Facilitated weekly team meetings to review progress & identify solutions, resulting in a 20% reduction in errors and meeting deadlines.
- Adapted quickly to new research environments, relocating across various countries and collaborating with diverse teams of scientists.
- Techniques: GC, HPLC and NMR.

Assistant Professor Darren Bradshaw Group

Southampton, UK

Scientific researcher

September 2018 - May 2019

- Collaborated with a multidisciplinary team of scientists to integrate and fit into a laboratory environment, driving the successful execution of projects.
- Developed protocols for automating sample preparation procedures, increasing throughput efficiency by 15%.
- Analysed data from over 500 experiments and identified new trends contributing to completing the research objectives.
- Techniques: IR, Mass spectrometry, PXRD, SCXRD, and TGA.

Educator and Tutor Bedfordshire, UK

PGCE QTS Educator

September 2020 – May 2021

- Organised and facilitated public speaking workshops for teachers, improving teacher confidence levels and leading to more engaging classroom discussions.
- Designed and executed weekly laboratory experiments, resulting in a 20% increase in student engagement and understanding of class material.
- Developed and delivered engaging lesson plans to over 100 A-Level students, resulting in a 90% pass rate in Chemistry, Biology, and Physics exams.

PREVIOUS EDUCATION

Integrated Masters

University of Southampton, UK

Second Division Upper Class

September 2016 – May 2020

- Collaborated with a small team to present projects & reports, achieving an 85% grade.
- Regularly delivered a high-quality product far ahead of time, followed up by clear, concise lab reports
- Utilised advanced Microsoft Excel skills for regression analysis and calculating concentrations of unknown samples with 98% precision.
- Spearheaded a successful biodiesel aviation project while maintaining quality standards through careful management of the team involved.

September 2013 – May 2015

A – Mathematics, Chemistry, Physics (AS)

B - Biology

WORK EXPERIENCE

QA London, UK

Data analyst

June 2020 – September 2020

- Delivered ad-hoc analysis to 40+ clients, achieving project objectives within time and budget constraints.
- Produced campaign analyses for clients, uncovering trends & providing actionable recommendations.
- Conducted in-depth data analysis of large datasets to identify trends and generate actionable insights, using advanced SQL queries to uncover key patterns.
- Developed predictive models based on statistical inference & programming techniques (Python and R).

National Crystallography Centre

Southampton, UK

Scientific researcher

September 2019 – June 2020

- Managed the handling of confidential client data while conducting comprehensive research on the properties of crystals using single-crystal X-ray diffraction techniques.
- Harnessed Diamond Light Source facilities to analyse crystal sponges using the crystalline sponge method & produce a detailed report, resulting in an increased understanding of non-crystalline compounds.
- Collaborated with Rigaku and Merck to optimise single crystal x-ray diffraction (SCXRD) techniques for characterising non-crystalline compounds, increasing the accuracy rate by 25%.

VOLUNTEERING

Enactus, Southampton

- Organised Future Brew start-up business, working with local supermarkets to reuse unwanted bread & craft ale, resulting in second place at the 2020 National Enactus Expo.
- Coordinated partnership negotiations between Southampton University student bar & Future Brew to offer craft ale on tap; sales generated over £2K in revenue within three months.

Sports

- Raised £500 for Brain Tumour Research, Keech Hospice and other charities by completing three half marathons The Great North Run, Milton Keynes Half and Southampton Half Marathon.
- Organised fundraising events to collect donations from corporate sponsors & local businesses

SKILLS & INTERESTS

Programming Languages: HTML, CSS, Latex, Python, R, SQL.

Visulisation and design: Adobe suite, Fusion 360, Inkscape, Microscoft Office, Origin, PowerBI, Tableau.

Languages: French (Beginner/Intermediate)

Interests: Fitness, healthy cooking, independent learning, public speaking, and travel

REFERENCES

Available on request