

Andrew Oldnall





Astronomy and Astrophysics Researcher

A dedicated Astrophysics researcher, with an undergraduate degree in Applied Physics and a master's degree in Astronomy and Astrophysics (predicted Distinction). I have developed a meticulous eye for detail and a systematic approach to data validation, essential for the integrity and reliability of research findings. Proficient in python, I am committed to streamlining data workflows, enhancing accessibility, and ensuring that astronomical data is not only accurately represented but also primed for innovative research and discovery. My passion lies in harnessing data's potential, ensuring its readiness for the next frontier of astronomical exploration.

KEY SKILLS

- Expert organisational skills.
- Computational Skills (Programming in Python, Linux)
- Problem Solving and Analytical Skills.
- Time Management and Record Keeping.
- Critical Thinking and Research Skills.
- Communication Skills.
- Data Analysis and Management.

CONTACT

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EDUCATION

The University of Manchester (2021-Present)

MScR in Astronomy and Astrophysics: Submitted, awaiting grade.

Core Modules: Radio Astronomy, Astrophysics Skills, and Radio Interferometry.

Dissertation Topic: A Catalogue of Extended Green Objects for ALMA-GAL using the GLIMPSE Survey.

Manchester Metropolitan University (2016-2019)

BSc in Applied Physics, First class honours (1st)

Core Modules: Mathematical Methods 1&2, Physics 1&2, Digital Signal and Image Processing, Power Generation and Distribution and Sensor Systems.

Dissertation Topic: A Quantum Bell Test Homodyne Interferometer at Ambient Temperature for Millimetre Wave Entangled Photons.

Clarendon Sixth Form College (2015-2016)

Access to higher education in Medical Sciences, PASS

Core Modules: Physics (Distinction), Biology (Merit), Chemistry (Merit)

CAREER EXPERIENCE



ENVIROLAB, Manchester

Laboratory Technician, April 2022 – Present

envirolab

As an Environmental Laboratory Technician, I provided core services to the environmental sector across air, land, grounded samples and dangerous positive samples (such as asbestos). I support, test and teach on environmental substances. My responsibilities include:

- Perform routine and specialised tests, following strict methodologies to carry out analyses.
- Ensuring the quality of work and maximising production of complex extractions/testing involving asbestos.
- Proficient in the use of a range of laboratory equipment and machinery and familiar with advanced laboratory techniques, such as microscopes, centrifuges, pipettes and spectrometers.
- Clean, maintain, and calibrate laboratory equipment to ensure its accuracy and functionality.
- Experience of working in a process driven team environment, demonstrating an ability to be flexible and provide support for colleagues.
- Conduct quality control tests and procedures to ensure that results are accurate and that equipment is functioning properly.
- Analyse results and data to identify any abnormalities or patterns, and report findings to senior staff or analysts.
- Monitor inventory levels and order laboratory supplies as necessary.
- Flexible and responsive to customer needs and able to provide information, advice and guidance whilst maintaining confidentiality.
- Extract and analyse samples following the QMS guidelines and SOPs.
- Responsible for running the designated instrument, calibration, quality control, data processing and system suitability recording.

THE UNIVERSITY OF MANCHESTER, Manchester

Assistant Teaching Technician, Dec 2019 – Sept 2021



As an Assistant Teaching Technician who supported undergraduate students at the University of Manchester, I provided core services to Faculty of Biology, Medicine, and Health (FBMH) and to its laboratory groups across four buildings, referred to as the Biomedical Corridor. I supported and aided in practical sessions as well as OSCE examinations. My role included:

- Setting out and clearing away practical classes to clearly defined standards (as per written instructions, photographs, or diagrams).
- Sterilisation and decontamination of various laboratory materials, which have come into contact with human bodily fluids e.g. blood, saliva, urine.
- Assistance with computer-based equipment, and audio-visual equipment and materials as requested.
- Proficient in the use of a range of laboratory equipment and machinery and familiar with advanced and PhD laboratory techniques.
- Great communication skills, demonstrating an ability to deal with a wide range of people.
- Great organisational skills and able to prioritise work in a busy environment and meet strict deadlines.

As a laboratory technician my roles included:

- Administration duties such as filing, photocopying, phone operative, sending and receiving packages.
- Extract and analyse samples following the QMS guidelines and SOPs.
- Work with other seniors where appropriate and other management to ensure results are reported within customer time frames.
- Assist in the supervision and mentoring of band 1 and band 2 Technicians.
- Responsible for ensuring the quality of work and maximising production of extractions/testing.
- Responsible for the safety and cleanliness of the laboratory areas within my control.
- Ensure analysis is undertaken in a manner which meets the requirements of any relevant accreditation standards ISO 17025/MCERTS.
- Ensure that all received items are goods receipted daily and effectively manage stock within their department. This includes authorising invoices, stock counts and reporting of stock.
- Ensure the timely extraction of samples / reporting of data.
- Under supervision from the Analysts and Section Manager be responsible for running the designated instrument, calibration, quality control, data processing and system suitability recording.
- Comply with Health and Safety requirements of the site as stated within company policy, procedure, and practice.

MATHS MADE EASY, Manchester
AQA Physics Content Creator, Sept 2019 – Oct 2019

MME.

An internship at Maths Made Easy, my role as a Content Creator was to create educational documentations and engaging revision resources for Maths Made Easy surrounding AQA Physics at foundation and higher GCSE level and A-level that were distributed across the UK in a scheme to reduce failure scores in Physics in educational settings.

This role involved:

- Being able to produce concise revision notes that aid students in understanding and consolidating their physics knowledge from basic principles to more challenging concepts.
- Differentiated topic questions with student-friendly model answers.
- Being able to take creative liberties to provide fun and friendly documentation that is academic friendly.
- Being able to clearly follow a mark scheme.
- Reviewing and editing content created with the physics team, ensuring it is accurate prior to publishing.
- Collaborating with the team to build out new courses, organising, structuring, and comparing content where relevant.
- Contributing to the overall improvement of content creation processes and operations for future projects.
- Exceptional written English and grammar skills.
- The ability to clearly communicate challenging scientific concepts to a student audience.

REFERENCES REQUEST:

Dr. Neil Salmon
Researcher – MMW Sensors Limited.
Former Physics lecturer at MMU
salmon.na@tiscali.co.uk

Prof. Gary Fuller
Professor of Astrophysics – The University of
Manchester
gary.a.fuller@manchester.ac.uk