OWEN J. THOMAS

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PROFILE

Enthusiastic MSc Theoretical Physics student at Kings College London (part-time). Through both academic work and professional experience, I've demonstrated an ability to self-direct learning across new domains - from developing programming skills during my research internship to expanding into quantum computing, machine learning and data science through personal projects. I am a believer in life-long learning and approach my work with gratitude, taking ownership of all I do. My best work happens when undertaking independent research - particularly enjoying bringing structure and clarity to ambiguous or abstract problems.

EDUCATION

Kings College London Present - 2026
Master of Science - MSc, Theoretical Physics (Part-time)

University of Exeter 2021 - 2024
Bachelor of Science - BSc (Hons), Physics

TECHNICAL SKILLS

Programming

- Python: Pandas, NumPy, Matplotlib for data analysis, hardware control/ automation.
- Quantum Computing: IBM Qiskit SDK and composer for building quantum circuits, understanding of quantum information and algorithms
- Machine Learning: TensorFlow for deep learning, scikit-learn for classical ML, experience independently building CNNs/ PINNs.
- Web Development: static webpage design with HTML/ CSS (ojthomas7.github.io)

Scientific Analysis

- Proven capability and genuine passion for independent research, from initial literature review through to practical implementation and evaluation.
- Theoretical Physics: quantum mechanics, QFT, quantum computation
- Strong mathematical and statistical skills, including advanced calculus, differential equations, and linear algebra.
- Methodical problem-solving facilities, cultivated by physics-based education.

PROFESSIONAL EXPERIENCE

Software Development Research Intern June - July 2024
University of Exeter - Centre for Metamaterial Research and Innovation (CMRI) *Exeter, Devon*

I held the position of a research intern under Dr. Calum Williams with the CMRI at the University of Exeter. My objective was to create a python program for hardware automation by communicating with each hardware components SDK, creating a hypercube of spectral data. The final work culminated in a singular python file with a GUI that allowed researchers to automate and conduct their experiments remotely.

AI Development and Training
Outlier AI - Mathematics Consulting *Remote*

I work part time as a model evaluator for Outlier AI, specifically working on the reinforcement of an LLM's mathematical capability. This includes inventing unique and original mathematical prompts that are sufficiently complex to stump the model, and then correcting the model so that it may go on to improve its reasoning ability within mathematics.