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Profile

After completing my integrated masters from the university of Oxford I spent the year working in AI and software development for an edutech startup and have travelled extensively, participating in science, technology, and teaching projects in multiple countries in multiple languages. I'm now looking to apply these skills to at a larger company with a great work environment.

Education

UNIVERSITY OF OXFORD, WADHAM COLLEGE, MASTER OF PHYSICS — 2018-22
Upper Second-Class Honours

LATYMER UPPER SCHOOL, LONDON — 2010-18
A level results: 5 A*s, best in cohort. GCSE results: 11 A*s, best in cohort.

Relevant Experience

FULL-STACK DEVELOPER, MY MARKING MACHINE, 2023-24
- Full-stack development for a AI startup working to automate exam-marking at https://mymarkingmachine.com/
- Leveraged SQlite3, Express, ReactJS, and NodeJS to develop various functionalities of the web application, including an analytics dashboard, LLM integration, and migration to cloud computing.

ML ENGINEER, MYSOCIETY via FACULTY FELLOWSHIP, 2022-23
- Utilised BERT model to develop and deploy a ML semantic-search at https://cape.mysociety.org/
- Used Regex, SpaCy for NLP pre-processing and delivered a Jupyter Notebook using Pandas to allow retraining of the model by a non-specialist.

MPHYS PROJECT, DEPARTMENT OF ASTROPHYSICS, OXFORD UNIVERSITY, 2021-22
- Worked under world-renowned astrophysicist Pedro Ferreira on the simulation of the gravity of a class of theorised cosmological topological defects, global monopoles.
- Used Python's SciPy and Wolfram Alpha to solve a system of stiff, non-linear equations with non-trivial boundary conditions using a shooting method.
- MATLAB to visualise the results and LaTeX to typeset the thesis.

DEPARTMENT OF ATMOSPHERICS, OXFORD UNIVERSITY, 2020-21
- Developed an ML algorithm for the estimation of global land surface temperature from METEOSAT infrared channels.
- Used object-oriented Python to process the raw full disc images, train the model, and visualise the output.
- Used R to implement error analysis of the results.

RESEARCH ASSISTANT, DESY, HAMBURG — 2018
- Worked under an international, multidisciplinary team on the development of X-ray lenses (Multilayer Laue Lenses).
- Learnt the fundamentals of Fourier transforms and the basics of software needed for Optics research.

RESEARCH ASSISTANT, IBEX, DURHAM – 2017
- Interned at an innovative technology firm in their development of photo-realistic medical X-rays using computer modelling and new diffraction techniques.

Other Experience

INNOVATION INTERN, EPITECH, BENIN — 2022
- Worked as a teacher and content creator at the Benin campus of the global IT university, Epitech.
- Developed a 2-week bootcamp in Freelance Web Design including the basics of HTML, PHP, and CSS.
- Taught a 1-week English class, focused on its relevance in computer science.

MATHEMATICS AND PHYSICS TUTOR, FREELANCE and PEMBROKE TUTORS, LONDON — 2017-23
- Tutored numerous students through their GCSEs, A levels, Oxbridge PAT exams and interviews.

CAMERA ASSISTANT, VISION CHALLENGED, NEPAL - 2018
- Worked as cameraman and sound recordist on a film documenting the celebrated neurosurgeon, Henry Marsh in his work in improving brain surgery in lesser-developed health systems.

Languages

- English (native)
- French (B2)
- Spanish (B1)
- Portuguese (B1)