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University of Oxford, St. Hilda's College - MPhys Physics

2019 - 2023

- 86% first year average
- St. Hilda's College Scholarship in Physics (academic scholarship based on performance)
- Crankstart Scholar (widening participation scholarship based on household income)
- Apollo Scholar (widening participation scholarship based on academic performance)
- Peer Supporter (Trained student welfare role)

2021 - Present

d'Overbroeck's Sixth Form

2016 - 2018

- 5 A Levels: Maths - A*, Further Maths - A*, Economics - A*, Physics - A*, French - B

Oulder Hill Community School

2016

- 11 GCSEs A*-A including English, Maths, and Science

EXPERIENCE

Pupil Misconceptions: Circuits & Voltage (Report author)

Jan 2021 - Apr 2021

- Conducted research into electrical misconceptions using 2 secondary school physics cohorts
- Evaluated existing teaching against further educational research in electronics
- Identified key areas in which pupils struggle in dealing with circuits
- Provided reccomendations to partner school to bolster their GCSE physics programme

The Brilliant Club (Charity and Development Intern)

Dec 2020

- Aided the design of a maths program based upon cartesian geometry for secondary students
- Designed and recorded a physics presentation based on heat engines targeted at A level students
- Reviewed diversity provisioning and made reccomendations for more inclusive operations

OxFizz (Widening Participation Intern)

Aug 2020

- Created a month long research report on barriers for disadvantaged Oxbridge applicants with 2 other interns
- Conducted research through provider interviews and student questionnaires distributed to ~ 500 students
- Investigated existing access provisioning and identified lacks therein, presenting these gaps graphically
- Provided reccomendations for future access support programmes, bearing in mind resource constraints
- Outlined and began development of a long-term student roadmap resource for Oxbridge applications

World Experience Exchange (Research Intern for Kids Club Kampala)

Jun 2020

- Analysed an existing off-grid ~ 640W PV system in for bottlenecks in hardware
- Identified hardware limitations of (lead-acid) batteries and charge controllers in the current setup
- Researched power solutions for existing and future needs, requiring up to $\sim 2,500$ Wh daily
- Liased with local organisations to determine possible training and funding for the project

Citizens Advice (Campaigns and Research Intern)

Apr 2020

- Decomposed regional client profile trends (~ 6,000 entries) using spreadsheet software and Python
- Identified at-risk client demographics over a 6 month dataset
- Analysed the impact of COVID-19 on service usage
- Presented reports based on research to be used in targeting specific demographics of userbase

Slipstream (Oxford Team Member)

Mar 2020 - Present

- Co-ordinate student mentoring & promotional program with several team members
- Collaborate with national group members to help expand outreach work

Cropper (Developer)

Summer 2019 - Present

- Created terminal program for *nix systems to edit media files
- Maintain Cropper in the Arch Linux User Repository
- Extended skills to develop various utility scripts such as bulk renaming

British Heart Foundation, Oxford (Volunteer)

Aug 2018 - Jan 2019

- Facilitated stock organisation alongside 4-5 colleagues
- Responsible for aiding dozens of customers on a daily basis
- Gained insight on management in regards to marketing and sales

Research EPQ on Matter-Antimatter Imbalance (Researcher and Writer)

Spring 2018

- Independantly conducted report analysis and research on early universe particle interactions
- Developed conclusions based on recent experimental evidence
- Presented report to a large (\sim 200 people) audience at the YSJ Conference 2018

SKILLS

- Tableau, spreadsheet software, basic HTML, shellscript, MATLAB, Python 3, awk, sed, and LTFX
- Version control using git
- Numerical modeling (such as via the RK4 or Metropolis-Hastings method)