

FINTAN HARDY

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EDUCATION

Ralph Allen Secondary School

2012 - 2017

- 9 GCSE's

Beechen Cliff School (Sixth form)

2017 - 2019

- A levels: Maths (A), Chemistry (A), Physics (A)

University of Manchester - MEng Chemical Engineering

2019 - 2023

- Relevant modules include several engineering maths modules covering topic such as ordinary differential equations, Laplace functions and a substantial amount of calculus throughout the course and in most modules.

TECHNICAL SKILLS AND ABILITIES

Programming

- Python: Experience using scikit learn, pandas, openpyxl, numpy, matplotlib and seaborn
- MATLAB: Used throughout degree course
- Git: Basic usage for personal projects

PROJECT EXPERIENCE

Research Internship at the University of Manchester

Summer of 2022

Won a place on a summer research internship as part of the De Visser group in the Manchester Institute of Biotechnology. The project was based on determining the last steps in the catalytic cycle of a non-heme iron to produce Downloaded Deoxypodophyllotoxin

- During the internship I had to quickly learn how to use Gaussian 09, a quantum mechanical software for analysing molecules and their interactions.
- I developed several python scripts to scrape the contents of the multi-million line output files from Gaussian, and used the python module matplotlib to visualise the results in graph form.

3rd Year Design project

2021-2022

Our group was tasked with designing a chemical plant for the sustainable production of Cyclohexanol using the hydrogenation of Cyclohexene. These results were presented in several reports, a presentation to industry experts and an interview.

- Thoroughly designing a reactor inside the plant for the hydration of benzene to produce Cyclohexene. Which includes detailed rate based sizing of principle equipment, Safety and control system design as well as detailed mass and energy balance across the reactor
- Collaboration between group members is an important part of this report and professional standards were met where group meetings were scheduled with an agenda and minutes taken.

ACTIVITIES AND INTERESTS

Sports: Member of a Rowing club based in Manchester and train regularly throughout the week with aims of competing in the various national regattas throughout the year.

Music: During my time in secondary school and A levels i was a keen musician and achieved grad 8 with distinction in drum kit and was a part of the BANES society of young musicians, where I played drum kit and tuned percussion in the wind orchestra, brass band and wind orchestra. Throughout my time there I played throughout the country in many competitions and concerts and learnt how to perform under pressure, learn quickly and adapt on my feet and take and receive constructive criticism.