

Jack Sanders

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Summary

I am a third year Physics student at the University of Birmingham interested in Nuclear Physics, Particle Physics and computing. I'm Proficient in Python but i am eager to learn more programming languages like java, C and also languages for web development. I am an active team member participating in a variety of sporting activities and societies both at home an at University.

Education

University of Birmingham

MSci PHYSICS

Birmingham, UK

2017 - Exp. 2021

Year 2, 2:1

Lagrangian&Hamiltonian Mechanics: 72%
Particle Physics: 72%
Nuclear Physics 62%
Project, Underwater Pendulum: 70%
Computing: 93%

Year 1, 2:1

Fundamentals of Accounting and Finance: 74%
Quantum Mechanics: 76%
Project, Inertial of a Flywheel
Computing(Python): 93%

Whitchurch High School

A-LEVELS

Maths: A*, Further Maths: A, Physics: A

Cardiff, UK

2016 - 2017

Whitchurch High School

GCSE's

11 A* - C, Including Electronics, Maths and Science

Cardiff, UK

2010 - 2016

Work Experience

Arup

VACTION PLACEMENT

Cardiff, UK

Jul. 2019 - Aug. 2019

I spent 6 weeks of summer with the Bridges and Highway team in Cardiff. I was involved in a number of projects, mainly working for the A40 project, organizing the Draft order documents for Welsh Government and nearby residents.

Arup

VACTION PLACEMENT

Cardiff, UK

Jul. 2018 - Aug. 2018

Spending 5 weeks with the Highways team in summer i worked on junction improvement on the A470/M4 Wei-tag 2 study. Looking at drone footage of traffic i was tasked to redesign junction to improve traffic flow. I spent the majority of time working with CAD software to produce professional drawings that were submitted to welsh government for consideration. As of now the project is still in the Design stage

Arup

VACTION PLACEMENT

Cardiff, UK

Jul. 2017 - Sept. 2017

At Arup I completed a 8 week placement in the Bridges group headed by Dan Griffiths. During this placement I worked on a number of projects such as, Bruce Highway where i was assigned a GSA model to calculate loads on a bridge on the Highway. Also in my time there I worked as a document admin allowing me to see what the business's work flow was.

Parkwood Leisure

RECREATIONAL ASSISTANT

Cardiff, UK

May. 2016 - Nov. 2016

At Park-wood I was a Life-Guard with responsibility of public safety.

GE Aviation

WORK EXPERIANCE

Nantgarw, UK

Jul. 2016

I spent a week at GE Aviation disassembling, inspecting and reassembling jet engines for commercial planes. Learning about safety and how engines are designed and built.

Hobbies and Interests

Water polo:

TEAM SPORTS

Currently representing Wales, recently competing in the senior men's EU Nations in Bruno, CZ. I also play for my club, Welsh Wanderers in the British National League and I'm the current 1st team captain of the University of Birmingham water polo team

Rugby:

TEAM SPORTS

In University I am a part of the engineers rugby team carrying on from playing for Llandaff RFC prior University. Rugby first introduced me to coordination within a team, having different roles that combine to make a winning combination.

Scouts:

VOLUNTEER

Before University i was a part of the local scouting network from beavers to explorers. During explorers I precipitated in the Young Leader program where i became a assistant leader of my previous cub pack organizing activities and camps.

Duke of Edinburgh:

VOLUNTEER

I have completed my Bronze award and I am currently completing my silver and gold. The most enjoyable part of the process was the expeditions as i got to work as a team in the wilderness.

Key Skills

The ability to work and learn under pressure ensuring deadlines are met whilst maintaining enthusiasm and commitment to projects. I have amassed experience of problem solving and numeracy skills through both education and employment.

- **Programing Languages:** Python, LaTeX, Ruby, Command line, SQL, HTML, CSS
- **Technologies**

Projects

UNIVERSITY

- 2018 **Physics Labs** Modeling the Inertia of a Flywheel
- 2019 **Physics Labs** Modeling the motion of an Underwater Pendulum

PERSONAL

- 2019- **The Odin Project** Web Development

References

Dr Daniel Griffith - Leader of Cardiff Bridges group at Arup

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Paul Newman - 2nd Year Tutor, Head of Particle Physics Group

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