

# DANIEL MURPHY

## PROFESSIONAL SUMMARY

Recent graduate with a range of experience within engineering and other disciplines. I am a motivated, hardworking individual that thrives in high pace environments and can work effectively within a team.

## CONTACT

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## EXPERIENCE

### Football Coach (August 2021 – Present)

*American School in London: London.*

I am currently a football coach for the high school JIV and middle school grade 7/8 girls football teams at the American School in London. This highly rewarding position allows me to demonstrate my leadership skills, as I am responsible for leading training session for up to twenty children at one time. This job has allowed me to build on my love for football, designing detailed trainings sessions to help develop their skills as much as possible. When training with the middle school teams, the coaches are responsible for supervising the children on the tube from the school campus to the training facilities. This requires good communication, leadership and organisation to make sure that the children arrive safely and on time to begin training.

### Customer Service Advisor / Dry-Side Recreational Assistant (November 2014 – June 2020)

*Queensmead Sports Centre: South Ruislip.*

- ❖ As a Customer Service Advisor, I was the face of the company to many customers. As well as assisting customers with any queries or concerns they had, I was also responsible for membership sales through sales calls, centre tours and guest passes. This required confidence, good communication and the ability to work in a high paced environment.
- ❖ As a Dry-Side Recreational Assistant, I was responsible for adhering to a strict activities timetable. At Queensmead, we offered a wide variety of different sports and activities, and areas such as the multi-purpose sports hall could be used for extremely different events consecutively. Another key responsibility of this role was ensuring that the entire centre was kept at an acceptable level of cleanliness. This role required high levels of organisation and communication.

### Groundskeeping Assistant (2015-2019)

*American School in London: London.*

I was chiefly responsible for setting up various sports fields during competitions. This required organisation and communication to ensure that all fields were correctly set up to match the timetable of the events. During the school holidays I was responsible for lawn maintenance, this included seeding, cultivating and watering the grass to ensure that it was maintained in excellent condition.

### Year in Industry (June 2018 – June 2019)

*Jaguar Land Rover: Gaydon, Warwickshire.*

#### Undergraduate Electrical Engineer 06/18 - 12/18

During the first half of my industrial placement year I designed, prototyped and manufactured various testing equipment used for ECU testing and verification. For example, an ECU Fault Induction box which changed the way the team performed ECU warranty testing and freed up the HILs rig for more rigorous testing of new hardware and software. Additionally, I performed continuous work in diagnosing and addressing any issues uncovered by other members of the team during testing. This involved assisting the lead engineer on the HILs rig for testing.

#### Undergraduate Software Engineer 12/18 – 06/19

During my time with this team, I wrote clean, clear and well-tested C code for various projects. I was regularly involved in debugging code which requires a precise eye for detail. I was constantly involved in extensive testing of ECU software written by myself and colleagues for the climate subsystem. I was the lead engineer responsible for the physical redesign of the HILs rig, which resulted in the design of a new setup

which allowed for twice as many HVAC units to be connected as before. This vastly increased the rig's efficiency as the rig engineer would spend much less time connecting and disconnecting the units.

#### Work Experience (September 2016)

##### Red Bull Racing and Technology: Milton Keynes.

I spent a week at Red Bull technology where I worked in the aero model shop, design office and finance departments. My work in the design office and model shop introduced me to working with CAD and prototype models, which I heavily relied upon during my time at university. I thoroughly enjoyed this experience as I believe it was the perfect technical introduction to my university course. In the finance office I was able to build upon the basic budgeting that I had worked on at the American School and gain insight into how different companies approach this using different software and management techniques.

#### Accounts and Bookkeeping Assistant (August 2014)

##### American School in London: London.

I was able to spend two weeks working with the Accounts and Bookkeeping team. My main responsibilities included entering and altering budgets for the upcoming academic year. I was able to see first-hand how other members of the accounts team performed higher level tasks and assist them if needed. I gained vital experience of working effectively within a team in an office environment.

### EDUCATION

#### Mechanical Engineering Automotive Themed with Industrial Placement Year (MEng)

##### University of Southampton 2016-2021

I have recently graduated in 07/21 with a First-Class Honours. Some key modules I undertook during my degree include:

- ❖ Individual Project (3<sup>rd</sup> Year): Investigating the Performance and Implementation of Low-Cost Air Quality Monitoring Systems in Southampton. I designed, prototyped and wrote a python script for a low-cost air quality monitoring system. I compared it to Southampton city council's existing system and demonstrated a different approach to air quality monitoring that would give more accurate results. This project involved the collection, storage and analysis of pollution data collected from a range of sensors.
- ❖ Group Design Project (4<sup>th</sup> Year): Member of the University of Southampton Small Satellite Project 2020/21 as the lead engineer of the Electrical Power System (EPS). I fixed key electrical issues that had plagued the project for years, was involved in the complete rewrite of the software's power module. Through these changes and effective communication with the software lead we were able to perform a full-scale integration between the EPS system and the onboard computer for the first time. Within this integration, a data pipeline was designed for the successful transfer of data gathered by the EPS for transfer to the onboard computer.
- ❖ Advanced Computational Methods: This was a module that focussed on writing in C and applied programming. I was able to develop the programming skills that I had learnt while at Jaguar Land Rover and achieved 91% in the module. Further, I was able to use what I had learnt in this module in my group design project when rewriting the power module.

#### A-Levels

##### St Bernard's Catholic Grammar School 2014-2016

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|------------------------|----------------------------|
| ❖ Mathematics (A2): A* | ❖ Chemistry (A2): A        |
| ❖ Physics (A2): A*     | ❖ Business Studies (AS): A |

#### GCSEs

##### St Bernard's Catholic Grammar School 2009-2014

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|------------------------|-----------------------|
| Mathematics: A*        | English Language: A   |
| Additional Science: A* | Religious Studies: A  |
| Spanish: A*            | History: A            |
| German: A*             | Core Science: A       |
| English Literature: A  | Physical Education: B |

#### SKILLS AND OTHER QUALIFICATIONS

- ❖ Recently completed Udemy The Data Science Course 2021: Complete Data Science Bootcamp.
- ❖ Programming Proficiency in C/C++, Python, SQL and Javascript.
- ❖ Experience in projects based on Arduino, Raspberry Pi and MSP430 microcontrollers.
- ❖ Basic German knowledge, currently studying.
- ❖ Creativity and experience designing systems from scratch.
- ❖ Extensive experience with MS Word, Powerpoint and Excel.
- ❖ Experience with budgeting for projects.
- ❖ Experience at effectively working in a team to achieve a common goal.
- ❖ Good communication skills.
- ❖ Critical thinking and problem solving demonstrated throughout my degree.