
Meng Mechanical Engineering University of Leeds

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Personal Profile

I am a third year Mechanical Engineering student with a passion for Data Acquisition and Control systems and want to improve my skills in a practical business environment.

I have gained a variety of experience, particularly in the area data acquisition in past practical projects. This year I am part of the Data Acquisition Team within Formula Student to design a system to record and display coolant temperature and fuel level and want to continue my career within a Motorsport Environment.

Education and Qualifications

University of Leeds – School of Mechanical Engineering

2011-2016

Meng Mechanical Engineering:
Predicated Degree Grade – 1st

First Year – 68%

Computers in Engineering Analysis	71%
Design and Manufacture 1	70%
Engineering Mathematics	65%

Second Year – 71%

Mechatronics	83%
Design and Manufacture 2	69%
Vibration and Control	69%

Design and Manufacture 1/2 – 70%/69% - Involved various team orientated tasks, involving full product lifecycles for example; Designing and validating a waterwheel to produce the optimal amount of energy with a known flow, personally creating Solidworks parts, such as brackets and panels, and creating BS8888 standard drawings which were created within the workshop on a strict time-scale

Formula Student – Data Acquisition within the Engine

Ongoing

For my Third Year Individual Project I am designing a system to record the temperature of engine coolant and alert driver of engine overheating and a system to display the volume of fuel in the system. Transferrable skills:

- Using past projects and an Academic Literature review to make my proposed system effective but cost-effect as possible.
- Communicating with the Fourth Year team, Academic supervisor and overall Team Manager for discussions and working through problems logically.
- Creating data acquisition software using a myDAQ to test the Coolant Temperature Sensor.
- Sourcing and communicating with suppliers for cost-effective solutions.
- Creating a project file of my progress including; issues and resolutions from meetings, my day to day progress on tasks, literature review notes and notes on software and hardware creating/integration.

*****Academical Institution

2004-2011

A2-Level: Math – A, Biology - A, Physics - B

GCSE: 2 A*/s/6 A's/3 B's: Math A*, Additional Math A, English A, Triple science AAB

Industry Focused Experience

McLaughlin and Harvey

July 15th – September 6th 2013

I worked on the site of the Critical Care Building at the Royal Victoria Hospital where all building services are being replaced. My duties included:

- Carrying out inspections of the quality and completion of newly installed services and subsequently delivering my findings to Line Managers which were presented in Microsoft Word.
- Communicating with the Commissioning body to ensure work that was completed was signed off and filed appropriately.
- Dealing with sub-contractors queries, ensuring work was completed on-time.
- Organising paperwork for completion of works of services for over 300 rooms.

Achievements

- LabVIEW Academy Member
- Part of 2012/13 Data Acquisition for Formula Student
- STEM Ambassador – 2012/13
- Mechanical Engineering Open Day Representative

Technical Skills

LabVIEW Matlab Abaqus Solidworks Microsoft Office Arduino

Work experience

STEM Ambassador

March 18th – March 22nd 2013

Worked at the Leeds Festival of Science, engaging with young people on interesting science topics including:

- Talking to pupils whilst carrying out tasks to engage and involve them
- Presenting to large groups of people on the activities

Key Employment Skills

Leadership – McLaughlin and Harvey work experience

- Took the initiative after been giving the task of inspecting quality of works to direct sub-contractors to areas that needed addressed and communicating with commissioning body to ensure work was signed off.

Teamwork – STEM Ambassador work

- I worked with another member to help out 2 groups each to ensure each group was engaged, improving our presentation and communication skills.

Problem-solving – University of Leeds assignment

- I was part of a team of 3 to calculate theoretical parameters for an engine vibration isolator. Keeping within the design parameters and applying my course knowledge, achieving 71%.

IT Skills – MEng Course

- Creating numerous laboratory reports, using Microsoft Excel to analyse data and display through appropriate graphics, Microsoft Word to explain the data and conclusions.

Matlab Experience – Meng Course

- Experience using Matlab to manipulate data to plot graphs with multiple subplots and manipulate matrices to gain appropriate values for a Finite Element Analysis assignment.

Hardware creation in my spare time – Arduino

- Broadening my knowledge of hardware and software solutions by working through the Arduino starter kit, creating a temperature sensor displaying to computer in real-time and Liquid crystal display for the temperature. This links in with the end goal of my Formula Student project.

Communication – Formula Student Project

- I attend numerous meetings throughout the week with the Engine Team and Data Acquisition Team on my progress and any issues to be addressed, as well as communicating effectively with two Academic supervisors in a weekly meeting working through problems logically.

Interests

- Student member of iMeche
- Keen interest in physical activity, attend gym regularly and play squash socially.
- Part of the Mechanical Engineering Rugby Team
- Keep up to date with Technology and Engineering news with PE magazine and iMechE newsletter.

REFERENCES

Academic Reference: Prof. Priest, Leeds Faculty of Engineering, m.priest@leeds.ac.uk
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Employer Reference: *****