Stefano Messina

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Education

BEng Mechanical Engineering with Aeronautics, University of Glasgow

(2019 - 2022) GPA: 21.83

Completed first semester modules: Engineering Mathematics 2 (A1), Power Electronics (A1), Fluid Mechanics (A1), Mechanics of Structures (A1) and Engineering Skills (A1), which involves the study of Solidworks and MATLAB. Second semester modules are: Dynamics 2 (CA), Thermodynamics 2 (CA), Mathematics AE2X (CA), Materials 2 (CA), Introduction to Aerodynamics (CA) and Mechanical Design 2 (A2). The courses without a grade have been completed and expanded through independent study and extra reading.

MEng Mechanical Engineering, University of Aberdeen

(2018 - 2019) GPA: 20.88

Modules covered in first year have introduced me to Electronics, Communication in Engineering, Design in SolidWorks, Mechanics, Mathematics and Materials in Engineering with the use of CES EduPack. In addition, I have gained a basic knowledge of Mandarin Chinese by completing two intensive courses.

- CAD and Communication in Engineering Practice A3
- Electronics Design A1
- Engineering Mathematics 1 A2
- Fundamental Engineering Mechanics A2
- Fundamentals of Engineering Materials A5
- Mandarin Chinese for Beginners 1 A1
- Mandarin Chinese for Beginners 2 A2
- Principles of Electronics A1

Huish Episcopi Sixth Form

Wincanton Rd, Langport TA10 9SS, Somerset, England (September 2016 – June 2018)

A-levels:

- Mathematics A*
- Further Mathematics A
- Physics A

GCSEs:

- Mathematics A*
- English B

Istituto Comprensivo Statale Giovanni Pascoli, Italy

(September 2010 - June 2013)

Licenza Media: 10/10

Relevant Work Experience and Volunteering

Leonardo Helicopters Work Experience Week

(Lysander Rd, Yeovil BA20 2YB, July 2017)

- Provided me with an insight of a big engineering company through tours and conversations with employees from different departments.
- Introduced me to the different types of testing of a helicopter fuselage encouraging me to find out more about the physics of materials.
- Provided me with some knowledge about gas turbines and transmissions and challenged me to search more about these topics.
- Contributed to the development of the skills involved in small group projects
- Improved my communication skills through a final group presentation about a topic to research delivered to my peers.

JetX Engineering – Exhaust, Afterburners & TVC team

- This university club for jet engines enthusiasts has provided me with a first experience in the world of jet engines. The aim of the society is to design and 3D print functioning jet engine models.
- Through the independent study of Thermodynamics 1 & 2 and Propulsion 3 courses I
 have developed a good understanding of the Physics and Mathematics involved in
 the design and working of the exhaust on a jet engine.
- Provided me with on-field work and study but also helped me to further improve my time management, teamwork and problem solving skills.
- Worked to understand the mathematical model (written in MATLAB) of the variable geometry nozzle in Kronos, a military jet engine.
- In January 2020 I have started to work on the new engine (X-Plorer 2), starting to define its specifications and completing a market research of commercial jet engines on which to base our model.
- Stimulated me to learn more about CFD and softwares like Star-CCM+.

National Citizen Service (NCS) England, Autumn Session 2016

- I volunteered for the NCS (National Citizen Service) in my local community in England. This involved organising a fundraising event to raise money for 'Mind', a mental health charity.
- The event involved the whole group I was part of, and it consisted in a cake sale from a stall on the main road of Street, a town in Somerset. In addition, I contributed to the advertisement of the event, creating and distributing leaflets at the nearby Clarks Village.
- A total of about £200 was raised and donated to 'Mind'.

WWF Italy (September 2015 - June 2016)

- I volunteered for the WWF in Taranto, Italy where I contributed to the maintenance and operated some guided tours of the natural reserve.
- My role was to coordinate and organise my colleagues into teams so that visitors did
 not have to wait a long time before getting their tour. At the same time I also operated
 at the birdwatching station, explaining to visitors the different species present in the
 reserve. Surely, this contributed to my development of skills such as leadership and
 teamwork, but also communication and multitasking.
- After the tours, I and the team I was part of, also carried out the maintenance of the reserve, collecting litter in the area that poses a serious threat to the animals.

Key skills

IT

Good knowledge of the use of Microsoft Office and also have some experience of Microsoft Access and C++ at school level. Currently learning SolidWorks and MATLAB both through projects at university and JetX. Also have experience with CES EduPack which was used in the material selection process for the Mechanical Design project.

Problem solving

Able to devise strategies to approach and solve problems. I enhanced this skill through the study of A-levels, but also applied it during my volunteering and work experiences. Currently improving this skill through my work with JetX and courses at university.

Communication

Have developed excellent written and verbal communication skills throughout my school career in both England and Italy, always trying to express concepts in the clearest possible way. This was achieved thanks to presentations and written reports, like those for the Mechanical Design project.

Leadership

I have had experience leading people during projects both throughout university and school, but also during my volunteering experiences. The most recent example is the Mechanical Design project in which I led the group in designing a racing bike. I coordinated all the group members by making sure everyone was giving their contribution and made sure that the report of the project was delivered on time.

Teamwork

I always try to be proactive when working in a team and, where possible, I try to gain the leadership. I acquired the skill through volunteering for my local community but also managing tours at the WWF reserve in my city.

Organisation and multitasking

Excellent organisation skills were fundamental in High School when scheduling study for oral and written examinations, also trying to fit my sport activity in. These skills have been perfectioned throughout the first two years of university, but also when I joined JetX. I always try to organise my activities in the best way possible, usually in an order of level of priority.

Interests and Achievements

- Bronze at Yr.13 Maths challenge
- Titanium Award for Isaac Physics Y13 Mentoring Scheme 2017-2018
- Enjoy playing football and table tennis
- Have practiced swimming for 9 years also participating to competitions
- Enjoy reading Physics books to learn more about the way the world around us works
- Formula 1 follower, aviation and air shows enthusiast

References

References are available upon request.