

Mariana Ravelo

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London, UK

PERSONAL PROFILE

I am a motivated, organised, and hard working recent graduate at Aberystwyth University. I completed a **Master of Physics** degree in **Space Science and Robotics** and achieved an **Upper second-class honours**. I have experience developing **simulations** of robotics and theoretical physics scenarios, as well as knowledge of **microcontroller programming**. In search of a position in the space sector, where I can apply my knowledge to solve problems and develop my skills.

KEY ACHIEVEMENTS AND SKILLS

- Experienced in Python with knowledge of Matplotlib, NumPy and Pandas. I'm also familiar with C and Java.
- Skilled at creating robotic simulations with the Robot Operating System and Gazebo, as well as CoppeliaSim.
- Knowledge of astrophysics and keen interest about space.
- Understanding of forward and inverse kinematics, path planning and SLAM.
- Knowledge of artificial intelligence, machine learning and computer vision.
- Held a part time position as a Sales Assistant which allowed me to expand my skills in effective communication, teamwork and multitasking.

EDUCATION

Aberystwyth University

September 2019 – July 2023

Space Science and Robotics

Master of Physics

Dissertations:

- **Masters:** Stereo Observation of Fast-Moving Objects. A special relativity theory project where a physics simulation was created to visualise complex relativistic phenomena. Grade achieved: 74.
- **Bachelors:** Simulation of a Mars Rover. A project aiming to create a robotic simulation to allow observation of different driving strategies being performed by a six wheeled rover. Grade achieved: 67.

Some modules completed during my degree include:

- Fundamentals of Intelligent Systems : 65
- Space Robotics : 77
- Robotic Applications : 66
- Computer Vision : 70
- Scientific Python : 84
- C and C++ : 67
- Laboratory Techniques for Experimental Physics: 83
- Programming Using an Object-Oriented Language:77

Reading College

September 2017 – July 2019

A levels

- Maths : A, Further Maths : B, Physics : B.

WORK EXPERIENCE

Auntie Annes

September 2019 – September 2023

Seasonal staff member

- Collaborated in a team at a busy environment to bake products and provide sales services.
- Trained new employees.

Sciaky Work Placement

April 2017 and June 2018

Electrical Engineer Assistant

- Read control schematic diagrams and ladder diagrams.
- Connected and tested operator box switches and buttons.
- Received an introduction to PLC programming.

INTERESTS AND ADDITIONAL INFORMATION

- Music scholarship holder at Aberystwyth University, lead viola player of Philomusica and regular guest player at other town orchestras in Wales.
- Keen on getting involved with the community. Completed the National Citizen Service program and volunteered at Oxfam.
- Fluent in English and Spanish with an interest in learning other languages.