

AI for Space Robotics

Code: 19/23

Company: GMV Innovating Solutions

Location: GMV, HQ Building, Thomson Avenue, Harwell Campus, OX11 0GD

Company Description:

GMV is a privately owned technological business group with an international presence. Founded in 1984, GMV offers its solutions, services and products in very diverse sectors: Aeronautics, Banking and Finances, Space, Defense, Health, Cybersecurity, Intelligent Transportation Systems, Automotive, Telecommunications, and Information Technology for Public Administration and large corporations.

In the global world we live in, the individual and complex needs of our clients are usually met with technological products, solutions and services that are constantly evolving and that were not originally designed with the clients' specific needs in mind, but rather to cater to the common denominator in a global market.

The leadership position that GMV has attained in these sectors is based on an in-depth knowledge of client needs, which allows us to deliver solutions specifically tailored to their individual requirements. GMV offers clients the best solution, fully adapted to their own requirements and including all the support necessary to achieve optimum results at a suitable price. At GMV, our employees, operating model and cultural values focus on meeting the very needs of each individual client.

Project Description:

GMV is currently involved in a number of European Space Agency and European Commission (H2020) projects related to planetary exploration robots. Rovers of the future will need more autonomy and will need to be able to operate extended duration and range without any human input.

The precise project will not be known until start but it will related to robotics and artificial intelligence most likely in the context of space exploration using cutting edge technologies. The intern will join a small team and work on a range of activity that will be selected based on experience and discussion at the beginning of the internship. It may be related to ERGO (www.h2020-ergo.eu/) or simulations of Entry Descent and Landing (on Mars, Moon and Asteroids) or Sample Fetch Rover.

The project may include: Research, simulation software development, visualisation software development, software development, algorithm development, integration (lab work), testing (fieldwork) attending meetings or reviews.

Applicant Specification:

We are looking for an enthusiastic and driven applicant interested in robotics and space exploration. The applicant should have an interest and experience in software development. Applicants should be able to work well in a team and conduct research on their own.

Minimum Requirements:

- Experience in at least one programming language.
- Understanding of versioning software (ideally GIT).
- Extensive knowledge of space exploration either from academic background or self-study.

Preferred Additional Requirements:

Any number of the following will help you succeed with your application but not strictly required:

- Programming language: Matlab / Simulink (or Julia)
- Experience with ROS
- C++ or Python
- Experience vision processing.
- Basic understanding of image classification.
- UKSEDS membership
- Mechanical design / robotics
- Assembly Integration and Validation knowhow
- Experience with Linux OS.
- Student Robotics membership

Further details:

8 weeks minimum fixed term contract to be agreed with successful candidate but nominally with a start date around 17th June, 2019 to attend the SPIN Induction day at the Satellite Applications Catapult, and completion before 20th September for the Showcase the following week. Salary is £1,300- £1,500 (depending on education) per calendar month gross.

Closing Date for Applications: 5pm on Thursday 28 March

Applications should be made through the online form attaching a CV, before the closing date. Please note that elements of the form left incomplete will be deemed to render the application ineligible. They will be checked for eligibility and forwarded to the employer.