

## Intern in EAC in the Exploration Group (On-Site)

**Job Req ID:** 12514

**Closing Date:** 25 June 2021

**Publication:** External Only

**Vacancy Type:** Intern

**Date Posted:** 28 May 2021

ESA is an equal opportunity employer, committed to achieving diversity within the workforce and creating an inclusive working environment. Applications from women are encouraged.

### **Location**

EAC, Porz-Wahn, Germany

### **Our team and mission**

**Spaceship EAC:** The Directorate of Human and Robotic Exploration Programme (D/HRE) is the main ESA entity in charge of supporting and coordinating efforts towards the current and the future endeavours of human spaceflight. The exploration activities are part of the strategic plans in securing a central role for Europe with respect to the global initiatives. The European Exploration Envelope Programme (E3P) is integrating the ESA activities in this field to ensure a single exploration process. The strategy includes three destinations where humans will work with robots to gather new knowledge: Low Earth Orbit (LEO), the Moon, and Mars.

The “**Spaceship EAC**” initiative is investigating low Technology Readiness Level (TRL) technologies for supporting the future cislunar space mission as well as surface activities on the Moon as part of the Exploration Preparation, Research and Technology (ExPeRT) team. This multidisciplinary, innovation-driven team composed by researchers, graduate and undergraduate students is based at the ESA European Astronaut Centre (EAC). The mission statement of “Spaceship EAC” is centered on three main pillars: enhance, enable and inspire. The founding idea behind this initiative is indeed to enhance the capabilities of EAC via exploiting the spaceflight experience of the centre to develop and validate new operational concepts and valuable technologies in support of lunar human exploration scenarios. A pragmatic and research focused approach is adopted and knowledge acquired is disseminated within ESA and the relevant scientific community.

More information on the work of Spaceship EAC can be found here: [http://www.esa.int/About\\_Us/EAC/Spaceship\\_EAC](http://www.esa.int/About_Us/EAC/Spaceship_EAC)

An outline of some of the projects that we have recently been progressing can be found at the ESA blog (<https://blogs.esa.int/exploration/tag/spaceship-eac/>).

Interested candidates are encouraged to visit the ESA website: [www.esa.int/ESA](http://www.esa.int/ESA)

### **Field(s) of activity/research for the traineeship**

Within Spaceship EAC, we have a number of fields areas where we carry out different projects. In particular, we are currently looking for talented persons to join us to support our activities in the domain of mixed reality (XR). The opportunity would involve:

- Demonstrating disruptive technologies such as Virtual/Augmented reality, collaborative robotics and their potential use cases for exploration
- Developing software related to the ongoing projects within Spaceship EAC relating to VR and AR

- Supporting modeling development for integration into virtual environments
- Topics related to 'off world living', e.g. human factors, design and concept illustration

### **Topic 1**

Virtual/Augmented/Mixed Reality – we have previously successfully developed novel approaches to using these two technologies for activities within EAC (e.g. training, design reviews). Continued development of these projects is planned and we are looking for students with skills and interest in this area to join the team and help advance this topic.

### **Behavioural competencies**

Result Orientation  
Operational Efficiency  
Fostering Cooperation  
Relationship Management  
Continuous Improvement  
Forward Thinking

### **Education**

Candidates must have student status and be enrolled at university for the entire duration of the internship. Applicants should preferably be in their final or second to last year of a University course at Masters Level in a technical or scientific discipline.

### **Additional requirements**

The working languages of the Agency are English and French. A good knowledge of one of these is required. Knowledge of another Member State language would be an asset.

The topics listed above require such educational knowledge as:

- Demonstrable skills in VR, AR or video game development

### **Other information**

For behavioural competencies expected from ESA staff in general, please refer to the [ESA Competency Framework](#).

If you require support with your application due to a disability, please email [contact.human.resources@esa.int](mailto:contact.human.resources@esa.int).

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Please note that applications are only considered from nationals of one of the following States: Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland, and the United Kingdom. Nationals from Latvia, Lithuania and Slovenia, as Associate Member States, or Canada as a Cooperating State, can apply as well as those from Bulgaria, Cyprus and Slovakia as European Cooperating States (ECS).