

R2023863 – Software Developer and Integrator, Rover Mission Ops and Integrator, Rover Mission Ops Simulation

Computer Scientist III

Hassan Eslami – Hiring Manager

NASA, working with private industry, is planning our return to the Lunar Surface. For the first time since 1972, we are planning boots on the Moon. For the first time ever, we will conduct Lunar Polar explorations on the surface. These explorations will include both human and robotic missions. Join the team planning the first robotic lunar polar surface exploration. At NASA in Silicon Valley, we are designing a Lunar prospecting mission to search for water ice in a polar region on the Moon. This rover will launch as early as 2023.

The rover project uses a simulation environment for software and operations development, operations team training, and in-flight software updates and testing. This simulation environment uses ROS1, ROS2, Gazebo, Python, Eclipse RCP and other software components. The simulation engineer will be responsible for integrating simulator components including rover system and environmental models, operator interface applications, and command/telemetry applications; making changes to the simulation environment, and also for developing tools to analyze the results of various simulation runs. The simulation engineer also configures and operates the simulator and interfaces with other team members during operations simulation and training activities. If you are a software developer with a robotics background, join us in this groundbreaking endeavor.

Required Education, Experience, & Skills:

- Bachelor's Degree in computer science or related field
- And 3 + years of industry experience
- Understand and write ROS nodes for a robot with multiple cameras and other sensors
- Model a complex robotics system, including sensors, in Gazebo
- 2+ years of experience with Python: Write Python scripts to analyze rosbag data
- Previous work on large projects: Come up to speed quickly on a large, thinly documented project comprised of C++11, Python, and Java
- Have strong object-oriented design and implementation skills
- Excellent communication skills and ability to interact with diverse set of people

Desired Experience & Skills:

- Robotics background
- Experience with mapping and 3D terrain software (e.g., GIS, OSGeo tools)