Lunar Rover Simulation Engineer

Computer Scientist II

Chris Provencher – Hiring Manager

At NASA Ames Research Center in Silicon Valley, we are designing a Lunar prospecting mission to search for water ice in a polar region of the Moon.

Join the team planning the first robotic polar Lunar surface exploration! This position is for a full-time robotics simulation engineer to develop software for the NASA VIPER Lunar Rover:

https://www.nasa.gov/feature/new-viper-lunar-rover-to-map-water-ice-on-the-moon

The VIPER project is creating a high fidelity Lunar simulation to support development of the flight software and mission operations training. This Gazebo/ROS2 based simulation environment interfaces with virtually every aspect of the mission, and we need people with a broad range of technical expertise to help pull it all together. If you are a software developer with a simulation, robotics, or graphics background, join us in this groundbreaking endeavor. You can learn more about our simulator in this paper:
https://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/20190027571.pdf

Applicants should have a B.S. (or higher) in Computer Science or Robotics and at least 2 years of experience.

Required Skills and Traits:
- Strong background in physical simulation, visual simulation, and/or sensor simulation
- Strong background in developing high-performance software, particularly with C++11, Python 3, and GNU tools under Linux
- Ability to simulate a complex robotics system in Gazebo, including sensors and interaction with the environment

Other Desired Skills:
- Gazebo plugin development
  - ROS2 (Robot Operating System)
- Physics engines (ODE, Bullet, DART)
- 3D Graphics (OpenGL, GLSL, OGRE, appearance modeling)
- Terrain modeling, GIS, OSGeo tools (GDAL, proj4)
- 3D Modeling, CAD