R2022464 – Space Mission Control Software, Web UI Test Engineer

Software Engineer IV

Hassan Eslami – Hiring Manager

- NASA is returning to the Moon. The VIPER Mission lunar rover mission (https://www.nasa.gov/feature/new-viper-lunar-rover-to-map-water-ice-on-the-moon) will land a rover at the South Pole of the Moon to map the distribution of water ice, in preparation for the first woman and the next man to land on the Moon as part of the Artemis program. VIPER is a challenging mission. The rover must traverse through the light and shadows of the south pole, while maintaining Earth communications and sunlight for solar power.

We seek an experienced software test engineer to join our team building the user tools for this mission. You will be leading the testing effort for the mission control software built on NASA's Open Mission Control Technologies (Open MCT) platform (https://nasa.github.io/openmct/), and assisting the VERVE rover driving tool (https://software.nasa.gov/software/ARC-16457-1A) team to test that software. You will be working with a multidisciplinary team of software developers, user interface designers, spacecraft designers and operators, and scientists. If you love space, that is even better. This role is based at Ames Research Center in Silicon Valley but may require occasional travel to support users at other NASA centers around the United States.

Responsibilities:

- Own the testing strategy (including automated and manual testing) for Open MCT to ensure compliance with functional, performance, and reliability requirements
- Define new test procedures and expand on existing JavaScript test suite
- Map requirements to functional and performance tests
- Carry out manual per-sprint and per-release testing
- Working with the development team, lead the effort to define automated tests that verify functional and performance requirements
- Triage bugs found in testing and establish and communicate severity of bugs
- Document and present results of tests to the team leads

Required Education, Experience & Skills:

- B.S. degree in Computer Science, Software Engineering, or equivalent
- 6+ years of web application testing experience
- Hands on experience testing Web UI, in a fast-paced environment
- Defining formal test procedures
- Writing automated tests in JavaScript using web testing tools such as Jasmine, Karma, Jest, Selenium, etc.
- Performance testing against high throughput multi-channel data feeds
- Using CI/CD tools such as Bamboo and CircleCI

Desired Experience:

- Developing applications in JavaScript.
- JavaScript performance testing.
- Performance optimization for JavaScript applications.
- JavaScript static analysis tools such as ESLint.
- Building automated testing suites for web applications.
- Developing and maintaining automated JavaScript tests in Jasmine.
- Configuring and maintaining our Continuous Integration and Continuous Deployment environments to meet our testing needs.
- Knowledge of JavaScript code standards, and code analysis and testing tools. Ideally, we are looking for someone to own these to ensure the quality of our code.
- Experience testing Java user interface code