

R2023862 – Early Career, Full Stack Software Engineer

(2 hires needed for this position)

Software Engineer I

Hassan Eslami – Hiring Manager

The NASA Technology Transfer System (NTTS) is a suite of data systems, web applications, and IT infrastructure for the Agency's Technology Transfer (T2) program containing 60,000+ technology portfolio supporting all ten NASA field centers and HQ. It is the enterprise system for facilitating the Agency's technology transfer process, which includes reporting of new technologies (e.g., technology & invention disclosures – NF1679), protecting intellectual properties (e.g., patents), and commercializing technologies through various technology licenses, software releases, spinoffs, and success stories using custom built workflow, reporting, data consolidation, integration, and customizable search engines.

Also, NASA Aeronautics Research Mission Directorate (ARMD) is hosting a series of Advance Air Mobility (AAM) "National Campaigns" (NC). The NC series will help determine the technology readiness level of the aviation industry with regard to vehicle performance, safety assurance, airspace interoperability and noise. The NC progresses through scenarios that assess the ability to verify technology readiness for operational use by standardized testing in partnership with the FAA.

Additional information available at NTTS general public Technology Transfer web portal:

<https://technology.nasa.gov>

Additional information on the AAM National Campaign is available online:

<https://www.nasa.gov/aeroresearch/aam/description/>

Job Description:

Join an agile technical team as an early career, full stack software engineer working on diverse range of NASA web-enabled IT/data systems for supporting and streamlining technology transfer. The early career software engineer will be immersed to the full NASA agile lifecycle software engineering and full-stack development process, splitting time between two NASA projects: (1) providing enhancements to the NTTS software platform and suite of both public and internal web portal applications, custom built workflow, data consolidation, integration, search engines, and reporting tools, and (2) supporting the development of the National Campaign's test infrastructure, including data integration and enhancing existing software applications.

*****Must be US Citizen or Permanent Resident*****

Required Skill and Traits:

- Comprehensive understanding and knowledge (formal and practical) of at least one of the following programming languages: JavaScript, PHP, UNIX/Linux shell scripting
- Comprehensive knowledge of building multi-tiered web applications using Service-Oriented Architecture (SOA) and the following technology solution stack: Linux, Apache, MongoDB, PHP (LAMP)
- Comprehensive knowledge and understanding of at least 2 or more of the following web technologies and standards: JavaScript, AJAX, CSS, HTML/XHTML, HTML5, XML, JSON, JQuery, REST(ful) web services and/or Application Programming Interfaces (API), Angular/AngularJS, Bootstrap, full-text Elastic Search engine, Laravel PHP frameworks
- Comprehensive knowledge and understanding of UNIX/Linux Operating Systems, such as Red Hat Enterprise Linux (RHEL)

- Comprehensive understanding and knowledge of at least one of the following databases and search technologies: MongoDB NoSQL document-based database, file systems; Drupal Content Management System (CMS), and Elastic Search
- Comprehensive knowledge in understanding the full and tailored agile/iterative software engineering & development lifecycle from initial requirements gathering/scoping to production grade products
- Strong verbal and written communication, particularly writing technical documentation and presenting to technical audiences.
- Must be a motivated team player and can also work independently in a small agile software development team
- Comprehensive knowledge and understanding of enterprise IT/data system design, architecture, and frameworks for scalability, modularity, and flexibility
- Experience and/or knowledge of Virtual Machines (VM) and/or Container technologies (i.e., Oracle VirtualBox, Docker Containers, Kubernetes, etc.)
- Experience and/or knowledge of cloud-based infrastructure and technology solution stack and services, such as Amazon Web Services (AWS) Elastic Compute (EC2) instances, S3 static storage, etc.

Other Desired Skills:

- Experience with agile software development methodology
- Experience with source code version control repositories and configuration management, such as: Subversion (SVN) and Git
- Experience with the following programming languages: Python, Java.
- Experience and/or knowledge of access control lists (ACL), and graph database management systems (e.g., Neo4J).
- Experience and/or knowledge of software Quality Assurance (QA) testing methodologies, such as black-box and/or white-box for unit testing and its testing frameworks, such as Mocha/Chai, Jasmine, Karma, JSUnit, PHPUnit, etc.
- Experience and/or knowledge using Continuous Integration/Continuous Delivery (CI/CD) frameworks using Bamboo, Jenkins, and Ansible DevOps scripting for automating software releases and deployment process.