Lab Automation Specialist

Come help us provide solutions for our research spaces!

Hiring now for a full-time, permanent position.

As the NIST Engineering Laboratory makes open data a bigger priority, we need to scale up the technical staff who help researchers collect and release their data. We are looking for someone who is data science focused with skills in lab automation with LabVIEW and Python.

Start by engaging with researchers to understand their needs and help them determine the best solution to take a lab concept from paper to reality. This may include programming with LabVIEW or Python to automate instrument control and data collection, working with other computing professionals (software developers and IT operations) to connect lab spaces to existing infrastructure, or developing infrastructure to support laboratory spaces. You are of course dedicated to principles of good software development and user experiences.

We don't have one large codebase, but many smaller research projects that have different applicability to both academics and the general public. This position is for someone who likes a diverse set of projects and enjoys the challenge of figuring out sound, supportable ways to perform research using instruments and collecting data in preparation for eventual public release.

Job Responsibilities
- Working with a team of researchers, developers, and IT ops people to design and build automated data collection, instrument control, and research solutions.
- Contributing to design discussions for engineering systems.
- Collaborating on implementation, including coding.
- Working closely with our researchers to help identify and define their requirements.
- Helping our researchers understand potential solutions and make the best use of technology, tools, and processes.
- Working with a team using DevOps principles for code deployment and production systems management.
- Troubleshooting application issues in production and resolving dev issues.

Technical Skills

We're an open source shop so we're looking for someone comfortable with open source tools and techniques, who is tool-agnostic and willing and able to choose and use the right tool for the job. We want someone who is willing to look at specific needs and recommend the best tool for the job, not just focus on a specific technology.

Most of our open data development is Python-based (especially Django and Flask) with use of various Javascript visualization libraries (jQuery, D3.js, leaflet.js) and back-end support with tools such as Node.js, Postgres, MySQL, MongoDB, etc. The more we can work with tools such as these, the easier open data becomes.

Recommended Skills

- Experience in a research environment or in an environment where the data may not be "big" but it could be complex and/or unstructured.
- Well-versed in LabVIEW and Python. C programming skills a plus.
- Experience with data acquisition hardware (e.g. we have lots of National Instruments hardware).
- Experience building databases including schema design/development and working with metadata.
- Comfortable with Agile development techniques.
- Education or experience in software development in the areas of code re-use, documentation, and IT security.
- Experience working with source control management.
- Ability to judge code quality and contribute to team best practices.
- Understanding of backend data systems and how they work with front-end applications.
- Able to rapidly context switch across subject matter, communication and architecture products, and stakeholder audiences.
- Experience with application design, development and testing.
- Analytical mindset and problem solving skills.
- Good team player, yet self-motivated, with excellent writing and communication skills.

Requirements

US Citizenship required
BS in a science, engineering or math-related field required

About Us

From the smart electric power grid and electronic health records to atomic clocks, advanced nanomaterials, and computer chips, innumerable products and services rely in some way on technology, measurement, and standards provided by the National Institute of Standards and Technology.

Founded in 1901, NIST is a non-regulatory federal agency within the U.S. Department of Commerce. NIST's mission is to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life. NIST consists of several research laboratories, one of these is the Engineering Laboratory.

The Engineering Laboratory promotes U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology for engineered systems in ways that enhance economic security and improve quality of life.

As well as a competitive salary and benefits package, we also offer continuous learning prospects, including technical training, developing leadership skills, and attendance at industry events.

For further information, please visit www.nist.gov/el or contact carolyn.rowland@nist.gov.

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