



Software Engineer II

UNAVCO, a non-profit membership-governed consortium, facilitates geoscience research and education using geodesy. Learn about UNAVCO on [YouTube](#).

For nearly three decades, UNAVCO has spearheaded the utilization of cutting-edge technology while providing robust operational support for researchers exploring tectonics (earthquakes, volcanoes, plate tectonics), the deformation of ice, the Earth's response to ground water, sea level, and aspects of the hydrosphere, and atmosphere. Our instrumentation toolbox includes high-precision GPS, LiDAR (Light Detection and Ranging) for Airborne Laser Swath Mapping and Terrestrial Laser Scanning, InSAR (Interferometric Synthetic Aperture Radar), and more. We host the NSF's Geodesy Data Archive and provide cyberinfrastructure to support the full data life cycle and interoperability with national and international Earth science Data Centers.

Our long-term success depends on development of a forward-looking, diversified workforce that draws on and cultivates talent across the demographic spectrum of gender and ethnicity, across international boundaries, and across scientific disciplines.

UNAVCO is an Equal Employment Opportunity and Affirmative Action Employer
Male/Female/Disabled/Veteran

Position Overview

There are two fulltime positions in our Boulder, CO office.

UNAVCO offers a very competitive total compensation package including Medical, Dental, Vision, Life, STD, LTD, Supplemental Benefits, 4-weeks PTO, Retirement with a 10% employer contribution, RTD EcoPass, and onsite Fitness Center to name a few.

As a Software Engineer you will provide critical support to the Geodesy Data Services Program functions. You will collaborate with other software engineers and data scientists on systems requirements and design, and you will develop software components and systems and web tools supporting collection, archiving, and distribution of data and metadata to our global network of researchers and data centers. We have opportunities for special projects to utilize your unique set of skills to help us build the next generation of tools for enabling geodetic science.

- Develops and maintains software for metadata and data search and delivery to UNAVCO's global network of researchers and data centers through database backed web pages using Java, Javascript, HTML, Flex, PHP and Google Maps API.
 - Supports database maintenance and upgrades and develops and tunes SQL queries as needed.
 - Develops web tools, forms and reports supporting population of databases and distribution of data and metadata, and supporting user and internal documentation.
 - Participates in the team that develops and supports software for new and evolving UNAVCO projects in support of data for GPS, InSAR, LiDAR and other data types.
 - Collaborates with data engineers and scientists on schema requirements and designs and implements database schema.
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Software Engineer II

- Collaborates and consults with the Web team on Web interface corporate standards, user-experience design, and Web site integration.

Skills and Knowledge, Position-specific

There are two fulltime positions in our Boulder, CO office.

Both positions require:

- Demonstrated skills in object-oriented software development with Java 1.6 or later, and with class hierarchies and abstraction.
- Demonstrated skills with Spring, JEE5, and Hibernate.
- Proficient in programming SQL queries and with database access via JDBC or Perl DBI.
- Proficient in Subversion or a similar source code control environment.
- Experience with test, build, and integration systems including JUnit, Ant, Maven, Jenkins.
- Experience with working in a networked UNIX environment, preferably Solaris and RH Linux, and with development on a Mac OS X system.

Additionally, one position requires:

- Demonstrated skills with JSF, Facelets, JavaScript.

Additionally, the other position requires:

- Proficient in web development with PHP, Google Maps API, JavaScript, and JSP.
- Proficient in scripting with Perl, Python, or Ruby.

Desired Skills and Knowledge

- Proficient in development of web services using technologies including SOAP, XML, HTTP, Tomcat, and Axis2.
- Proficient in web development with Flex4, ActionScript.
- Experience with Spring WebFlow
- Experience with HTML5 development.
- Experience with Adobe BlazeDS Java remoting.
- Experience with Oracle 10g and later.
- Experience with MySQL.
- Experience with PostgreSQL 9.0 or later and with PostGIS.
- Experience working in Agile development.
- Some database administration experience.

Education and Experience

- Bachelor's degree in Computer Science or Information Systems and a minimum of four years software development experience OR equivalent combination of education and experience.

Software Engineer II

How to Apply

Visit our website at www.unavco.org for more information about geodesy and our work. If you are interested in joining our team apply online at www.unavco.org/careers.

Please submit a Letter of Interest, Resume and 3 Professional References with your application. The deadline for applications is **Friday, March 14, 2014**.

Please no calls from agencies or recruiters.

Software Engineer II

Position Description

Summary of Job

Responsible for design, development, implementation, testing, and documentation for components of software systems that support three or more of the following functions: data collection, flow, archiving, database interaction, web-based data search and access, interoperability, quality control, formatting, pre-processing, and visualization.

Working Relationships

Internal: Independently performs assignments under general supervision, guidance and review. Consults supervisor or team lead concerning unusual problems. May review the work of more junior staff.

External: Occasionally gathers requirements or obtains feedback from community members as users of web applications or on interoperability of UNAVCO software components. Provides user support. May work in teams with peers at other institutions.

Essential Job Functions

- Obtains and analyzes software systems requirements.
- Designs, develops, implements and supports moderately complex software systems. Tests and documents software systems. Follows internal software development, testing and documentation methodologies, policies and best practices.
- Participates in joint analysis and design activities with other staff in defining directions, standards, and timelines and identifying key technologies for evolving moderately complex software systems.
- Continually works to acquire and improve skills relevant to program.
- Keeps abreast of current best practices and trends affecting software systems.
- Contributes to authoring technical reports and publications and may present at conferences.
- Occasionally travels offsite as job needs dictate.
- Other duties may be assigned as necessary for the successful operation of the business.

Skills and Knowledge Required

- Highly proficient in at least one relevant primary language and knowledgeable in another.
- Significant experience with a major database management system and software techniques for database access.
- Knowledge of web application design and construction. Understanding of HTML and XML.
- Good understanding of object-oriented design and development, relational databases and database design, agile development, and continuous testing, with experience in regular application of these techniques to development products.
- Proficient with integrated development environments and source code control systems.

Software Engineer II

- Proficient with at least three relevant development platforms and knowledgeable with at least two others.
- Proficient working in UNIX-like environments.
- Ability to work independently with minimal supervision to develop and document complex software throughout the software design and development lifecycle with good productivity and low error rates.
- Proficient at establishing priorities and solving problems independently within a context of well-defined programmatic requirements. Skilled in collaborating with other members of a team.
- Excellent problem solving skills with their own software as well as an ability to address problems in other's software.
- Ability and motivation to learn new skills with software tools and acquire new software engineering knowledge and techniques.
- Good interpersonal skills working with peers, supervisors, and in planning team-oriented projects.
- Is expected to understand and operate within the basic requirements of a grant environment considering procurement standards and allowable costs.
- Very good written and oral communication skills in English.

Desired

Knowledge of GPS, Geodesy or Geophysics/Geology.

Required Education and Experience

Bachelor's degree in Computer Science or Information Systems and four years software engineering experience OR equivalent combination of education and experience.

Working Conditions

Physical Work Demands

- Able to sit and/or stand to work at a computer for extended periods of time.
- Able to move about a typical office environment on a daily basis.
- Able to lift and move up to 10 pounds occasionally.
- Regular and on-time attendance; hours may exceed 40 hours per week.
- Occasional travel by conventional means including aircraft, motor vehicle and the like.

Mental Work Demands

- Ability to understand complex problems and to collaborate and explore alternative solutions.
- Ability to organize and prioritize work schedules for self.
- Ability to compute, analyze and interpret data.
- Ability to make decisions which have minimal impact on the function and UNAVCO.

Software Engineer II

Note: To perform this position successfully, an individual must be able to perform each essential responsibility satisfactorily. The requirements listed above are representative of knowledge, skill, and/or ability required and are not intended to be an exhaustive list of all duties, responsibilities or qualifications associated with this position.

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