

Hello,

The U.S. Army Corps of Engineers (USACE), Engineer Research and Development Center (ERDC), Information Technology Lab (ITL) located in Vicksburg, MS is recruiting **Computer Scientists**. We are looking for candidates with a wide range of skills, knowledge and education level for both full time positions as well as internships.

**Who We Are:** The U.S. Army Engineer Research and Development Center helps solve our nation's most challenging problems in civil and military engineering, geospatial sciences, water resources, and environmental sciences for the Army, Department of Defense, civilian agencies, and our Nation's public good. Our vision is to become the world's premier public engineering and environmental sciences research and development organization.

As one of the most diverse engineering and scientific research organizations in the world, ERDC conducts research and development in support of the Soldier, military installations, and the Corps of Engineers' civil works mission, as well as for other federal agencies, state and municipal authorities, and with U.S. industries through innovative work agreements. ERDC operates more than \$1 billion in world class facilities at seven labs located in four states with more than 2,100 employees to administer an annual research program exceeding \$1 billion.

<https://www.erdcd.usace.army.mil/>

**What We Are Looking For:** Full time and Internships at all degree levels

**Position Description:** Computer Science Series, 1550

<https://www.opm.gov/policy-data-oversight/classification-qualifications/general-schedule-qualification-standards/1500/computer-science-series-1550/>

This series includes professional positions which primarily involve the application of, or research into, computer science methods and techniques to store, manipulate, transform or present information by means of computer systems. The primary requirements of the work are (a) professional competence in applying the theoretical foundations of computer science, including computer system architecture and system software organization, the representation and transformation of information structures, and the theoretical models for such representations and transformations; (b) specialized knowledge of the design characteristics, limitations, and potential applications of systems having the ability to transform information, and of broad areas of applications of computing which have common structures, processes, and techniques; and (c) knowledge of relevant mathematical and statistical sciences.

**Position Details:** Looking for individuals with skillsets and specializations in web development, high performance computing and data analytics. Candidates should be high-performing, independent thinking and driven individuals to work alongside other team members with a wide range and varying skill sets to solve our nations problems. Experience with or familiarity with some of the following languages and tools is required.

- JavaScript, Angular, Python, HTML, CSS, C#, TypeScript, C#, C++, SQL, .NET, .NET Core, R
- Node.js, MSSQL, MySQL, MongoDB
- Windows, Linux Mac

## Duties for a DB-1550-02, Computer Scientist Position, with the Information Technology Laboratory

- Assists in the application of sound research software development, software testing, software integration, software maintenance, and data analysis to support the Information Technology Laboratory's R&D mission and research projects.
- Works as part of an interdisciplinary research team of computer programmers, scientists, and engineers to develop computer applications.
- Defines, researches, and implements integrated systems architecture that achieves the spectrum of analytic methods and techniques to meet their needs, including (but not limited to): information engineering, system lifecycle methodology, data modeling and analysis, graphical user interfaces, rapid interactive network prototyping, and Internet standards, protocols and exploitation.
- Performs work as a computer scientist and technical consultant for work involving application, research, and development of mathematical, statistical and computer-simulated models and applications.
- Applies mathematical and software research engineering principles and disciplines to the building of software systems including graphical user interfaces.
- Performs web-based design and programming, and develops server-based software applications based on DoD best management and security practices.
- Researches, develops, and performs high-performance supercomputer simulations to solve engineering analysis and design problems, using computational models derived from any of the engineering disciplines.
- Solves practical computer science and engineering analysis through research and design problems using physics-based computational models and supercomputer simulations.
- Performs various duties concerned with the application and research into, computer science/engineering methods and techniques to store, manipulate, transform or present information. This work requires professional competence in the application of the theoretical foundations of computer science/engineering research, including computer system architecture, system software organization and the modeling of the representation and transformation of information structure.
- Utilizes specialized knowledge of the design characteristics, limitations, and potential applications of information systems, and of broad areas of applications of computing which have common structures, processes, and techniques.
- Performs significant software engineering program management duties related to the System Engineering Process (SEP) which supports complex, often highly specialized, state-of-the-art software systems.
- Identifies and employs the most advanced and affordable tools or techniques and methods for the analysis, display, integration and dissemination of data to address long-term Army and DOD objectives.

- Documents and maintains all new and/or modified software so that other computer scientists/developers can fully understand what has been done and how to use the software in a simulation environment.
- Researches and integrates new software products and development practices from industry and other government agencies.
- Researches, analyzes, interprets and applies computer science procedures in a variety of situations and recommend effective solutions to senior scientist.
- Plans, constructs and maintains databases for data storage, manipulation, and retrieval as needed for computer science applications.
- Researches, designs, and develops mobile applications using Mobile User Interface (UI) Design for cross-platform deployment including Android, iOS, Windows, and/or Blackberry.
- Applies knowledge of graphic display systems, general purpose graphics languages, and optimization techniques involving preprocessors graphical algorithms, memory management methods.
- Researches, designs, develops, and tests integrated computer hardware and systems using knowledge of computer software concepts such as data representation, data structures, file systems, operating systems, computer languages, software development methodologies, and network protocols.
- Attends meetings, conferences, briefings, and seminars related to project planning, advanced technologies, and supporting system concepts.
- Communicates effectively and routinely both orally and written with project team members and laboratory leadership.
- Accomplishes professional development and maintains technical proficiency through interaction with technical and professional societies, associations, academia, symposia, contractors, and research & development (R&D) organizations, by reading/reviewing technical journals and current literature, and participation in formal training programs.
- Performs other duties as assigned.

Official travel, not to exceed 25%, is required.

**Requirements:** Those applying for this position must be able to obtain at least a SECRET security clearance if requested.

**Applying:** Those interested in applying for this position can contact Mr. Lee Whitlow at [lee.whitlow@erdc.dren.mil](mailto:lee.whitlow@erdc.dren.mil). Please include your resume as a PDF in your initial email. Questions can also be sent to the same address or Mr. Whitlow can be contacted at 601-634-5222.