

Research Programmer, Institute for Software Research

Institute for Software Research (ISR) is one of the seven academic departments of the Carnegie Mellon School of Computer Science (SCS). ISR hosts the SCS PhD programs in Software Engineering (SE) and Societal Computing (SC), along with six professional masters programs. We also host the undergraduate minor in SE. Our research and educational programs focus on software engineering, hardware/software systems and various cross-disciplinary topics related to societal computing as security and privacy engineering, sustainability, energy efficiency.

We are seeking a research programmer for software development in the general area of building energy management, building automation, sensing and Internet of Things (IoT) technologies. You will work jointly with a team consisting of faculty members and graduate students from the SCS - ISR and the College of Engineering. In the first year, you are expected to work on "BRICK", which is an open source standardization effort for all things related to buildings and sensors/actuators within them (www.brickschema.org). Moreover, you will also be engaged with, and participate in, other research related activities including writing research proposals, working closely with graduate students and presenting the work in public venues.

Your primary responsibilities include:

- Attending required meetings and participating in various seminars and training classes to maintain or update skills needed
- Designing and implementing software applications and database specifications (often in a team setting) or modifying existing software packages to meet specific research needs. Documenting new designs, codes and modifications
- In consultation with project managers, principal investigators and other researchers, analyzing alternative algorithms, new routines and system changes and suggesting program and/or system changes as well as other solutions to problems
- Maintaining existing applications, correcting systems bugs, writing system improvements. Performing table/code maintenance, testing system upgrades, maintaining/updating system and user documentation
- Submitting weekly work progress reports to supervisor and performing related duties as assigned

Qualifications:

- PhD or M.S. in Computer Science, Electrical Engineering, Information Systems, or a related field preferred with at least 3 years of software development experience.
- Exceptional candidates with a Bachelor's degree in Computer Science, Information Science or Electrical Engineering will be considered if augmented with significant work experience (>5 years of software development experience).
- Strong communication, leadership and project management skills required
- Extensive programming experience in one or more of the following languages required: C/C++/JAVA/GO and Python
- Strong knowledge and interest in smart sensing applications and quantitative methods preferred
- Background on Building Information Models, Sensing technologies, Building Energy Simulation preferred
- Experience with developing ontologies, working with SPARQL/RDFs would be a strong plus

This is a temporary full-time position with a minimum duration of one year with an opportunity to extend the position.

Are you passionate about this dynamic opportunity with us? Please apply

Application submission:

Please attach your CV, transcript, a cover letter, and the names of three references. Also, please clearly state your career objectives, research interests/strength, and your future plans when applying for this position.

More Information

Please visit “Why Carnegie Mellon” to learn more about becoming part of an institution inspiring innovations that change the world. A listing of our employee benefits is available at:
www.cmu.edu/jobs/benefits-at-a-glance

Carnegie Mellon University considers applicants for employment without regard to, and does not discriminate on the basis of, gender, race, protected veteran status, disability, or any other legally protected status