Innovation Engineer - Office of the Vice President for Research

higheredjobs.com/search/details.cfm

Type: Full-Time
Category: Laboratory and Research
Military

Carnegie Mellon University

Carnegie Mellon University is a private, global research university that stands among the world's most renowned education institutions. With ground-breaking brain science, path-breaking performances, creative start-ups, big data, big ambitions, hands-on learning, and a whole lot of robots, CMU doesn't imagine the future, we invent it. If you're passionate about joining a community that challenges the curious to deliver work that matters, your journey starts here!

The Office of the Vice President for Research (OVPR) has responsibility for nurturing interdisciplinary research initiatives at one of the nations' leading research institutions. OVPR provides overall research administration and policy for all colleges and schools, as well as the university's more than 100 centers and institutes. Working closely with deans, department heads, faculty, students and staff, the office provides an innovative and

supportive research environment that spans all disciplines and campuses and assures that research activities are planned and conducted in accordance with regulations and University policy.

The Institute for Computer-Aided Reasoning in Mathematics (ICARM) is a new NSF Mathematical Sciences Research Institute located at Carnegie Mellon University. Our mission is to:

- Empower mathematicians to take advantage of emerging technologies for mathematical reasoning.
- Support cross-disciplinary collaboration to explore and extend these technologies.
- Ensure that mathematics and these tools are accessible to a broad audience.

A distinctive feature of ICARM is our Innovation Engineer team-technical staff who work side-by-side with mathematicians and other researchers to build, adapt, and apply tools from all facets of AI to solve concrete problems in mathematical research.

We are seeking Innovation Engineers and Senior Innovation Engineers to join our founding team. You will:

- Develop documentation, tutorials, training materials, and other resources to help others adopt and extend these solutions.
- Provide technical support and mentorship to mathematicians learning or applying new reasoning technologies.
- Maintain and curate software, datasets, and other resources for the community.
- Collaborate on the design, implementation, and refinement of tools for formal mathematics.
- Foster connections across disciplines, including mathematics, computer science, education, and industry.
- Participate in ICARM programs such as workshops, summer schools, and collaborative visits.

You might be a good fit if you have experience in one of the following:

- **Proof assistants and formalization of mathematics** (e.g., Lean, Coq, Isabelle)
- **Automated reasoning for mathematics** (e.g., SAT/SMT solvers, first-order theorem provers)
- **Machine learning for mathematics** (e.g., model architectures for theorem proving, data-driven exploration of mathematical structures)
- Or experience in related areas and a passion for mathematical discovery

We welcome applicants with varied backgrounds: from recent graduates with strong potential to experienced professionals who can lead substantial technical efforts.

Adaptability, excellence, and passion are vital qualities within Carnegie Mellon University. We are in search of a team member who can effectively interact with a varied population of internal and external partners at a high level of integrity. We are looking for someone who shares our values and who will support the mission of the university through their work.

Minimum qualifications:

- Bachelor's Degree required.
- 1-3 years of systems programming and administration experience.
- Proficiency in at least one relevant technical domain.
- Strong software engineering skills and familiarity with collaborative development practices.
- Ability to work closely with researchers and translate between mathematical goals and technical solutions.
- A combination of education and relevant experience from which comparable knowledge is demonstrated may be considered.

Preferred qualifications:

- Advanced degree (MS or PhD) in mathematics, computer science, or a related field-or equivalent practical experience.
- 3-5 years of systems programming and administration experience.
- Experience contributing to open-source projects.
- Background in mathematical research or close collaboration with researchers.

To be a Senior Innovation Engineer, you should have a few years of experience beyond the PhD working with the technologies of interest to the institute, or several years of experience beyond the Masters or Bachelor's Degree. If you are uncertain whether the senior level is appropriate, apply for the Innovation Engineer position and the level can be determined later.

Requirements:

Successful background check

Additional Information:

- This is an in-person position based in Pittsburgh, PA, with opportunities for occasional travel to conferences, workshops, and partner sites. Pittsburgh offers an unusually high quality of life for its cost of living, a thriving arts and food scene, beautiful parks and rivers, and a welcoming, collaborative tech community anchored by Carnegie Mellon and the University of Pittsburgh.
- Please attach a resume and cover letter with your application for full consideration.

Joining the CMU team opens the door to an array of exceptional benefits.

Benefits eligible employees enjoy a wide array of benefits including comprehensive medical, prescription, dental, and vision insurance as well as a generous retirement savings program with employer contributions. Unlock your potential with tuition benefits, take well-deserved breaks with ample paid time off and observed holidays, and rest easy with life and accidental death and disability insurance.

Additional perks include a free Pittsburgh Regional Transit bus pass, access to our Family Concierge Team to help navigate childcare needs, fitness center access, and much more!

For a comprehensive overview of the benefits available, explore our Benefits page.

At Carnegie Mellon, we value the whole package when extending offers of employment. Beyond credentials, we evaluate the role and responsibilities, your valuable work experience, and the knowledge gained through education and training. We appreciate your unique skills and the perspective you bring. Your journey with us is about more than just a job; it's about finding the perfect fit for your professional growth and personal aspirations.

Are you interested in an exciting opportunity with an exceptional organization?! Apply today!

Location

Pittsburgh, PA
Job Function

Software/Applications Development/Engineering
Position Type

Staff - Fixed Term (Fixed Term)
Full Time/Part time

Full time
Pay Basis

Salary
More Information:

- Please visit **"Why Carnegie Mellon"** to learn more about becoming part of an institution inspiring innovations that change the world.
- Click here to view a listing of employee benefits

- **Carnegie Mellon University is an Equal Opportunity Employer/Disability/Veteran**.

- **Statement of Assurance**

Carnegie Mellon University does not discriminate and Carnegie Mellon University is required not to discriminate in admission, employment, or administration of its programs or activities on the basis of race, color, national origin, sex or handicap in violation of Title VI of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972 and Section 504 of the Rehabilitation Act of 1973 or other federal, state, or local laws or executive orders.

Related Searches:

- Laboratory and Research
- Military-Friendly

© 2026 HigherEdJobs. U.S. Patent 8,548,928