Descriptions of the research assistant position

The Emerging Software Technologies (EST, https://est.umbc.edu) Lab at The University of Maryland, Baltimore County is seeking one highly self-motivated Ph.D. student who is skilled in software development and machine learning. The Ph.D. student will join the EST lab to develop machine learning and transformers models to analyze vulnerabilities in software codebases. The successful candidate will receive a full-time research assistant position within the EST lab.

We encourage everyone who is interested in quantum computing and machine learning to apply, especially candidates from historically underrepresented groups in STEM, e.g., Women, Blacks or African Americans, Hispanics or Latinos, and American Indians or Alaska Natives.

Responsibilities

- Conduct research on novel methods and tools to detect software vulnerabilities.
- Develop machine learning (e.g., random forest and neural networks) and transformers (e.g., GPT-4 and Hugging Face) applications for natural and programming language processing.
- Work independently on research projects and collaborate with other researchers and students.
- Publish research findings in top-tier journals and international conferences.
- Lead research projects and mentor master's students.

Qualifications

- Master's degree in Computer Science or a related field; Applications holding Bachelor's degrees in those disciplines with strong research publication records may be considered.
- Strong software development skills, including programming skills (e.g., Python, C, and Go) and project management skills.
- Solid knowledge of software engineering, machine learning, and natural language processing; experience in quantum computing and cybersecurity is a plus but not necessary.
- Previous research experiences with publication records in well-known journals and international conferences.
- Smooth scientific writing and communication ability.
- Ability to work independently and as part of a team.

Please contact me directly by email: leizhang@umbc.edu with your cover letter, CV, and post-secondary transcripts. You can also apply directly at UMBC Graduate School online application system: https://informationsystems.umbc.edu/home/graduate-programs/doctor-of-philosophy-programs/doctor-of-philosophy-in-information-systems/. Please feel free to mention your interest in the EST lab in your personal statements. The deadline for the Fall semester of 2024 is January 7, 2024.