The Socio-Technical Risk Analysis (SoTeRiA) Laboratory (http://soteria.npre.illinois.edu/) at the University of Illinois Urbana Champaign (UIUC) has an open graduate research assistant position, and is seeking a professional, hard-working, creative, and collaborative student to join the laboratory. The candidate will work on projects funded by the National Science Foundation (http://soteria.npre.illinois.edu/research/research-sub-page-3/). Based on the candidate’s background, potential home departments for the graduate student can include: Computer Science (http://cs.illinois.edu/), Informatics (http://www.informatics.illinois.edu/), or an associated Engineering department (http://engineering.illinois.edu/). The candidate’s research will directly contribute to the scientific advancement of Probabilistic Risk Assessment (PRA) used in diverse industries and in risk-informed decision making and regulation. The research candidate needs to have strong computational skills for designing, developing, validating, benchmarking and operationalizing Risk Analysis tools.

The candidate should be comfortable to work in the following areas:
- High-Performance Computing projects on large distributed multi-core supercomputing NCSA resources
- Large Volume Data Management of Unstructured Heterogeneous Documents (e.g., cleaning and coding a text corpus)
- Advanced Data Visualization (e.g., yt; http://yt-project.org/)
- Object Oriented Programming
- Multiscale Simulation
- Software Application and GUI Development

Proficiency in Python and R is required. Knowledge on using Python for integration with other languages is required. Experience with Java is preferred. Experience with C languages, Matlab, and FORTRAN is a plus. The candidate should have working knowledge of the Linux environment and how to write script files.

The candidate should have a strong research ethic, capable of documenting the development of code for maximum reproducibility and maintaining a high level of scientific excellence. This research provides the student with the opportunity to gain multidisciplinary risk analysis knowledge and experience. The student will work under the supervision of Professor Zahra Mohaghegh, and collaborate with the dynamic and interdisciplinary team of the SoTeRiA Laboratory. Please contact the SoTeRiA Lab if you are interested in this opportunity (riskanalysis@illinois.edu).