Postdoc Position for Privacy, Mobile Computing, and Internet of Things

Carnegie Mellon University
School of Computer Science
July 21, 2015

Our team within the School of Computer Science at Carnegie Mellon University invites applications for a postdoctoral fellow position, to work at the intersection of privacy, systems, mobile computing, and Internet of Things.

We are looking for a scientist to work on a research project on developing new techniques for inferring the purpose of sensitive data use by apps, and using these purposes in novel ways to help end-users and developers prevent and detect potential privacy problems. The work includes using a combination of static analysis, dynamic analysis, text mining, and machine learning techniques to accurately infer (or verify) the purpose of sensitive data use by arbitrary apps; using crowdsourcing techniques to create new privacy models that can be used to accurately predict the acceptability of various app behaviors; developing new user interfaces to help end-users specify privacy preferences based on purposes; and offering developers new kinds of tools to help simplify the task of ensuring that sensitive data is used in proper ways. An overarching goal is to evaluate our research on real users ‘in the wild’ which means building scalable systems infrastructure to run user studies on potentially tens of thousands of users.

This project is part of the DARPA Brandeis project, and the postdoc will be supervised by Professors Jason Hong and Yuvraj Agarwal. The postdoc duration will be for at least one year to start and is renewable. Candidates are also encouraged to explore research ideas beyond the project description. The position provides significant opportunities for publications, real world impact and professional development.

Ideal applicants will have a combination of technical skills and organizational skills to help with management of the project. Example skills include programming software systems, program analysis, text processing, data mining, machine learning, crowdsourcing, and designing and running user studies. We expect the selected candidate to be self driven, motivated and excellent at communication – both in writing and speaking.

An ideal start date will be Fall of 2015 or early 2016. To apply, please send a cover letter, CV, and list of references in PDF format to jasonh@cs.cmu.edu and Yuvraj.Agarwal@cs.cmu.edu. Additional material will be requested as needed.

Carnegie Mellon is an affirmative action/equal opportunity employer and we invite and encourage applications from women and minorities.