

**Department of Electrical Engineering and Computing Systems (EECS)
COLLEGE OF ENGINEERING AND APPLIED SCIENCE (CEAS)**

**SUMMER RESEARCH OPPORTUNITIES
FOR UNDERGRADUATE WOMEN**

APPLICATION DEADLINE: March 2, 2015

The Department of Electrical Engineering and Computing Systems (EECS) is pleased to offer the following research project for the summer of 2015. Interested students are urged to contact the faculty member(s) directing the project that most interests them. By contacting the faculty member, you can discover more about the project, learn what your responsibilities will be and, if possible, develop a timetable for the twelve-week research period.

Tagging in Automated Software Traceability

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Project Description

Software traceability refers to the ability to describe and follow the life of a concern throughout the development lifecycle. Traceability is not only a best practice recommended by numerous industrial standards, but also critical to many software engineering activities, such as verification and validation, change impact analysis, and regulatory compliance. Because manually documenting the traceability information is tedious, automated support has been developed to deliver traceability on-the-fly and on-demand.

This project is aimed at integrating state-of-the-art automated traceability generation methods with tagging, a lightweight social computing mechanism. Tagging allows users to freely associate user-defined keywords with information items. The practice has seen rapid and wide adoption by communities on the Web, such as Flickr and YouTube. The objective of the project is to take advantage of the informal nature of tagging to complement automated traceability solutions. The WISE student will work in a group environment, collaborating with software engineering faculty and graduate students. Specific tasks include: (1) research novel ideas to visualize, use, and share tags in traceability, (2) build proof-of-concept implementations, and (3) design and manage evaluations. Necessary training will be provided on relevant topics, such as traceability and tagging.