Topic: Networked Requirements Traceability – Professor Nan Niu, Department of Electrical Engineering and Computer Science

Software requirements traceability refers to "the ability to describe and follow the life of a requirement". In modern software development such as agile and open-source projects, requirements are often represented in a lightweight way (e.g., modeled as user stories) and refined continuously. This research project aims to develop a new way of understanding the trace links by leveraging the rich repositories of issues, code commits, and their discussion from the project stakeholders. In particular, a heterogeneous graph of people, artifacts, and tasks will be developed, from which the traceability will be defined. The Protege student will join a team of graduate students in the Software Engineering Research Lab for the summer research, and the research results will be submitted for peer-reviewed publications.