

# Computer Science Colloquium

Thursday, February 28<sup>th</sup>, 2013

2:15pm – 3:15pm

Petty Building, Room 313

## **DataBridge- A Sociometric System for Long-tail Science Data Collections**

Dr. Justin Zhan, North Carolina A & T State University

### **Abstract:**

There are currently thousands of scientists creating millions of data sets describing an increasingly diverse matrix of social and physical phenomena. This rapid increase in the both amounts and diversity of data implies a corresponding increase in the potential of data to empower important new collaborative research. However, the sheer volume and diversity of data presents a new set of challenges in locating all of the data relevant to a particular line of research. Maximizing the realization of the long-tail of science data requires tools specifically created to assist scientists in their search for relevant data sets. New tools specifically created to assist scientists in their search for relevant data sets and collaborators are required to realize the potential of the large and diverse data and enable important new multidisciplinary collaborative research on grand challenge scale problems. DataBridge is an e-science collaboration environment tool designed specifically for this purpose. We propose to explore a rich set of sociometric tools and the space of relevance algorithms, and adapt them to define different types of semantic bridges that link large quantities of diverse datasets into a sociometric network. We will develop a software tool, DataBridge, which will analyze data from several large NSF funded projects to provide relevance-based data discovery.

### **Speaker Bio:**

Dr. Justin Zhan is the director of iLab at Department of Computer Science, North Carolina A&T State University. He has previously been a faculty member at Carnegie Mellon University and National Center for the Protection of Financial Infrastructure in South Dakota State. His research interests include Information Assurance, Social Computing, Biomedical Computing and Health Informatics. He is a steering chair of IEEE International Conference on Social Computing (SocialCom), IEEE International Conference on Privacy, Security, Risk and Trust (PASSAT), and IEEE International Conference on BioMedical Computing (BioMedCom). He is currently an editor-in-chief of International Journal of Privacy, Security and Integrity and International Journal of Social Computing and Cyber-Physical Systems. He has served as a conference general chair, a program chair, a publicity chair, a workshop chair, or a program committee member for 150 international conferences and an editor-in-chief, an editor, an associate editor, a guest editor, an editorial advisory board member, or an editorial board member for 30 journals. In recent years, he has published more than 140 articles in peer-reviewed journals and conferences and delivered above 30 keynote speeches and invited talks. His research has been funded by different funding agencies including NSF, NIH and DoD.