

Tianjie Deng

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Education

2009 - 2015 Ph.D., Computer Information Systems, Georgia State University, Atlanta.
2007 - 2009 M.S., Human Computer Interaction, Georgia Institute of Technology, Atlanta
2002 - 2006 B.E., Software Engineering, Nanjing University, Nanjing, China

Academic and Research Experience

2015 - present Assistant Professor, Department of Business Information and Analytics,
University of Denver, Denver, CO
2009 - 2015 Graduate Research Assistant, Georgia State University, Atlanta, GA
2008 - 2009 Graduate Research Assistant, Georgia Institute of Technology, Atlanta, GA

Professional Experience

2009 Web Engineer Intern, Myfident Foundation, Roswell, GA
2006 Software Engineer Intern, Kingdee Corp, Chonging, China

Professional Membership

Association for Information Systems (AIS)

RESEARCH

Research Interests

Data Mining and Big Data
Business Intelligence
Open Source Software Development
Software Development Process
Requirements Engineering
Web Mining

Research Summary

My research applies data mining techniques to derive process models and theories from event streams. I have applied this research method in three domains: deriving a process theory of development dynamics from event streams generated in open source software development project repositories, deriving a process theory on fraud from event streams generated from the use of gift cards, and deriving a process theory of learning from patient event streams.

My dissertation research “An Event-based Analysis Framework for Free/Libre Open Source Software Development Projects” applies sequence mining techniques to event streams generated in open source software development projects. The dissertation designs, instantiates and

evaluates a framework and a tool EventMiner to analyze an open source software development project's evolution through its development activities. In this study, I first apply data mining techniques such as decision tree differencing, motif analysis and hidden markov model, to development event streams, to detect transitions in development behavior. Then I use extant theories such as Theory of Distributed Cognition as the theoretic lens to analyze and interpret the data mining result, with the intention to build a process model of FLOSS development dynamics.

Publications: Journal Articles

- William N. Robinson, Arash Akhlaghi, Tianjie Deng, and Ali R. Syed. 2012. "Discovery and Diagnosis of Behavioral Transitions in Patient Event Streams," *ACM Transactions on Management Information Systems (TMIS)* (3:1), pp. 1-28.
- Mark Keil, Hyung Koo Lee, and Tianjie Deng. 2013. "Understanding the Most Critical Skills for Managing IT Projects: A Delphi Study of IT Project Managers," *Information & Management* (50:7), pp. 398-414.

Publications: Conference Proceedings

- William Robinson, and Deng, Tianjie. 2015. "Diversity in Software Development Routines are Attractive: A Preliminary Analysis of GitHub Repositories." *21st Americas Conference on Information Systems(AMCIS)*. Forthcoming, Puerto Rico.
- William N Robinson, and Tianjie Deng. 2015. "Data Mining Behavioral Transitions in Open Source Repositories," *48th Hawaii International Conference on System Science (HICSS)*. Forthcoming, Kauai, HI: IEEE.
- William N Robinson, Arash Akhlaghi, and Tianjie Deng. 2013. "Transition Discovery of Sequential Behaviors in Email Application Usage Using Hidden Markov Models," *46th Hawaii International Conference on System Sciences (HICSS)*, Maui, HI: IEEE, pp. 2656-2665.
- William N Robinson, Ali Raza Syed, Arash Akhlaghi, and Tianjie Deng. 2012. "Pattern Discovery of User Interface Sequencing by Rehabilitation Clients with Cognitive Impairments," *45th Hawaii International Conference on System Science (HICSS)*, Maui, HI: IEEE, pp. 3001-3010.
- Mark Keil, Hyung Koo Lee, and Tianjie Deng. 2011. "Ranking the Most Critical Skills for Managing IT Projects: a Delphi Study of IT Project Managers," *Academy of Management Best Papers Proceedings* San Antonio, TX, August.
- William N. Robinson, Arash Akhlaghi, Tianjie Deng, and Ali R. Syed. 2011. "Diagnosing Stream-Mined Model Changes of Monitored Requirements for Cognitive Rehabilitation," *44th Hawaii International Conference on System Sciences (HICSS)*, Kauai, HI: IEEE, pp. 1-11.
- Art Vandenberg, Vaishnavi K. Vaishnavi, Saravanaraj Duraisamy, and Tianjie Deng. 2010. "Dynamically Generating Context-relevant Sub-webs," in *Global Perspectives on Design Science Research*, pp. 270-285.

TEACHING

Teaching Awards

2015 GTA Teaching Excellence Award, J. Mack Robinson College of Business, GSU
2012 GTA Teaching Excellence Award, J. Mack Robinson College of Business, GSU

Teaching Interests

Business Analytics
Systems Analysis and Design
Database Design and Applications
Business Intelligence
Programming

Summary of Average Teaching Effectiveness

Course Level	Course Title	Total Offerings	Average Instructor Effectiveness Score (5=highest rating)	Class Size
CIS Undergrad	Introduction to Computer-based Information systems	5	4.3	30 - 45
CIS Undergrad	Systems Analysis	5 (1 online session)	4.5	20 - 35
CIS Undergrad	Introduction to Database Systems	1 (1 online session)	4.4	25 - 25
CIS Masters	Enterprise Architecture	1	N/A (secondary Instructor)	35

Sampling of Student Comments

Professor Deng helped me understand CIS. I was fearful because I am not good with computers, however she changed all that.

She is amazing! She really helped me to learn about CIS in a fun and interesting way! I loved being able to be taught by her.

Extremely knowledgeable and willing to help. Very competent and great communication skills. Able to relate to student and make things interesting and engaging.

She was very fast to respond to email and made herself available outside of class several times for my group. She went out of her way to make sure we understood the material and had the opportunity to succeed.

She has a genuine interest in her students and appears to like teaching. She is very polite and easy to approach with questions or concerns.

Professor Deng is like the ideal IT manager and treats group projects in a way that mirrors how group projects will be undertaken in the field. She gives you the tools to succeed, is timely in responding to questions and gives the group full autonomy. I feel that due to her teaching style this is probably one of the most useful courses for any student that would like to work in an IT related field.

Knowledgeable about the topic and enjoys interacting with students.

SERVICE

- Reviewer for *Information and Organization*
- Reviewer for *Workshop on Information Technologies and Systems*
- Reviewer for *Americas Conference on Information Systems*
- Reviewer for *Journal of Management Analytics*
- Reviewer for *Academy of Management Annual Meeting*
- Reviewer for *European Conference on Information Systems*
- Presenter at Reviewing Symposium at *Conference of the Southern Association for Information Systems*, Macon, GA, August 22, 2014

ACADEMIC HONORS

- Renming Scholarship, Special Prize, Nanjing University 2005
- Renming Scholarship, 3rd Place, Nanjing University 2004
- Renming Scholarship, 2nd Place, Nanjing University 2003