

PENG SUN

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EDUCATION

Ph.D. student in Computer Science

North Carolina State University, January 2016-present

Iowa State University, 2014-2015

M. S. in Computer Science

Jilin University, P. R. China, 2011-2014

B. S. in Computer Science

Taiyuan University of Technology, P. R. China, 2007-2011

TECHNICAL SKILLS

Programming Languages	Python, PHP, Java, JavaScript, Html, Css, JQuery, Ajax, SQL, R, C#, Vb, Linux
Database	MySQL, Oracle, SQLServer
IDE	Eclipse, RStudio, Visual Studio
Techniques	Data mining, Empirical study, Statistical analysis, Machine learning

RESEARCH

Distributed Agile Software Development, Iowa State University 2015

Advisor: Dr. Carl K Chang

- Acted as **Scrum Master** in charge of two teams with 5 members in each for three sprints for Cooperative Research Environment (CoRE) system.
- Broke down stories with team members and estimate the time for each piece of work using planning poker technique.
- Managed the scrum process with SeeNowDo, arranged daily scrum meeting, resolved conflicts between two teams, and helped team members solve impediments.
- Summarized each sprint with product owner and team members in Retrospective Meeting.

Crowd consistency and quality control, Iowa State University 2015

Advisor: Dr. Kathryn T. Stolee

- Crowdsourced data from Amazon's Mechanical Turk to explore the crowd consistency in responses. Findings indicated a high percentage of workers perform inconsistently, which illustrates a need for quality controls in crowdsourced experiments.
- Implemented a crowd quality control system with PHP and MySQL to prevent users gaming crowdsourcing system. The system is helpful to improve crowd performance.
- *Publication: Peng Sun, Kathryn T. Stolee. Exploring Crowd Consistency in a Mechanical Turk Survey. At 3rd International Workshop on CrowdSourcing in Software Engineering.*

Specification mining using human intelligence, NC State University 2015-present

Advisor: Dr. Kathryn T. Stolee

- Mined specifications using crowd intelligence to compare the accuracy with traditional specification miners.
- A lightly trained crowd can perform better than specification miners. Implicating that crowd could be used to evaluate machine.
- *Publications: Peng Sun, Kathryn T. Stolee, Ivan Beschastnikh. Back to the future: specification mining using crowd intelligence (submitted)*

Regular expressions question classification, NC State University 2016

Advisor: Dr. Kathryn T. Stolee

- Explored developers' difficulty with regular expressions using Grounded Theory to find new research areas in regular expression.

Data Mining, Jilin University. 2011-2014

Advisor: Dr. Liyan Dong.

- Semi-supervised Study in Bayes
- A weight adjusting based multi-view semi-supervised learning classification algorithm.

Risk assessment of investment system; acting as a team leader, Jilin University. 2011

Advisor: Dr. Liyan Dong.

- Designed of an Accurate Algorithm for Evaluating the Investment Opportunities in a Company based on SWOT analysis; Set weight for different indicator based on history financial data.

INTERNSHIP

ARM Development Board, Taiyuan University of Technology 2011

- Built Linux environment (Ubuntu), and designed a MP3 Player on ARM development board
- Controlled the audio card, realize read and write methods. Tested the play music and lyric on ARM board

J2EE (Java 2 Platform Enterprise Edition), ChinaSoft International Ltd. 2010

- Designed a website "Technical Informationization Management System"
- Realize the database related operation for the "Talent Management" part of the system
- Designed right control for different kind of customer
- Control and manage the process of the whole program, assign task to everyone in the team
- Tested each module of the whole system, and served as team leader

Linux system, Tarena Technology; acting as a team leader 2009

- Built Linux environment: install Linux(red hat) system; configure internet connection
- Learning Linux basic command, and the frequent used command in Vi Editor

TEACHING EXPERIENCE

Teaching Assistant, Department of Computer Science, Iowa State University 2014-2015

PUBLICATIONS

- 2015 DONG et al. Maximum Difference Based Confidence Estimation Algorithm. Journal of Jilin University (Information Science Edition) 53: 1217-1222.
- 2013 Peng Sun et al. Optimization Algorithm for Bulk Data Import Based on Typed DataSet. Journal of Jilin University (Information Science Edition) 31: 210-214.
- 2013 DONG et al. Design and Implementation of Command Interpreter in Numerical Control Lathe Simulation System. Journal of Jilin University (Science Edition) 51: 676-680.
- 2013 DONG et al. Method Based on Milling Machine Radius Compensation. Journal of Jilin University (Information Science Edition) 31: 419-424.

PROFESSIONAL SERVICES

Reviewer of journal publications (*ad hoc*): *Neural Computing and Applications* 2016