Jingxuan Zhang (张静宣)

Ph.D. Candidate

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Research Interests

My research interests include **Software Data Analytics** and **Mining Software Repositories**. The goal of my previous work is to analyze the current software development and to improve the development productivity with artificial intelligence techniques. By exploring software repository data, I analyze the existing development process, identify problems in software development, design algorithms, and evaluate results with software tools. In my research, I extend and develop machine learning, data mining, and natural language processing techniques to uncover the interesting information in real-world software. In particular, I focus on three research topics: **Mining Bug Report**, **Mobile Application Analysis**, and **API Documentation Analysis**.

- In Mining Bug Report, my work addresses summarizing bug reports to help bug report comprehension;
- 2. In **Mobile Application Analysis**, my work addresses recommending new features from mobile application descriptions to support domain analysis;
- In API Documentation Analysis, my work addresses discovering key knowledge, enriching API
 documentation, and recommending relevant documentation fragments for APIs to enhance API
 learning.

Education

Sept. 2014 – Present Ph.D. in Software Engineering

Dalian University of Technology, Dalian, China

Advisor: Prof. He Jiang

Sept. 2012 – Jul. 2014 M.S. in Software Engineering

Dalian University of Technology, Dalian, China

Advisor: Prof. He Jiang

Sept. 2008 – Jul. 2012 B.S. in Network Engineering

Dalian University of Technology, Dalian, China

Research Experience

May. 2014 – Aug. 2014 Research Assistant

Singapore Management University, Living Analytics Research Center

Research Project "Recommending New Features from Mobile App Descriptions"

Advisor: Prof. David LO

Publications

Journal Articles

- 1. He Jiang (Supervisor), **Jingxuan Zhang**, Hongjing Ma, Najam Nazar, and Zhilei Ren. <u>Mining Authorship Characteristics in Bug Repositories</u>, SCIENCE CHINA Information Sciences. Jan. 2017, Vol. 60, pp. 012107:1-012107:16. (CCF B类期刊)
- 2. He Jiang (Supervisor), Najam Nazar, **Jingxuan Zhang**, Tao Zhang, and Zhilei Ren. <u>PRST: A PageRank based Summarization Technique for Summarizing Bug Reports with Duplicates</u>, International Journal of Software Engineering and Knowledge Engineering (IJSEKE). Aug. 2017, Vol. 27(6), pp. 1-29. (CCF C类期刊)
- 3. **Jingxuan Zhang**, He Jiang, Zhilei Ren, and Xin Chen. <u>Recommending APIs for API Related Questions in Stack Overflow</u>, IEEE Access. Accepted.
- 4. He Jiang (Supervisor), Xin Chen, **Jingxuan Zhang**, Xuejiao Han, and Xiujuan Xu. <u>Mining Software Repositories: Contributors and Hot Topics</u>, Journal of Computer Research and Development. Dec. 2016, Vol. 53(12), pp. 2768-2782.
- 5. Zhilei Ren, He Jiang, Shuwei Zhang, **Jingxuan Zhang**, and Zhongxuan Luo. <u>Boosting Local Search with Lagrangian Relaxation</u>, Journal of Heuristics. Oct. 2014, Vol. 20(5), pp. 589-615.

Conference Papers

- 6. He Jiang (Supervisor), **Jingxuan Zhang**, Zhilei Ren, and Tao Zhang. <u>An Unsupervised Approach for Discovering Tutorial Fragments Explaining APIs</u>, In Proc. of 39th IEEE International Conference on Software Engineering (ICSE'2017), Buenos Aires, Argentina. pp. 38-48. (CCF A 类会议)
- 7. He Jiang (Supervisor), **Jingxuan Zhang**, Xiaochen Li, Zhilei Ren, and David Lo. <u>A More Accurate Model for Finding Tutorial Segments Explaining APIs</u>, In Proc. of 23th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER'2016), Osaka, Japan. pp. 157-167. (CCF B类会议)
- 8. He Jiang (Supervisor), Hongjing Ma, Zhilei Ren, **Jingxuan Zhang**, and Xiaochen Li. What Makes a Good App Description?, In Proc. of the 6th Asia-Pacific Symposium on Internetware (Internetware '2014), Hong Kong, China. pp. 45-53.

Selected Awards

1.	2017.9	Dalian University of Technology	Scholarship for Outstanding Doctoral Thesis
2.	2016.9	Dalian University of Technology	Outstanding PhD Candidate
3.	2015.9	Dalian University of Technology	First-Class Scholarship (5% chance)
4.	2012.6	Dalian University of Technology	Outstanding Graduate
5.	2011.9	Dalian University of Technology	First-Class Scholarship of Company by SHIDE
6.	2011.9	Dalian University of Technology	Outstanding Student

Professional Service

1.	Conference Reviewer	HASQ 2016 (International Workshop on Human and Social Aspect of Software Quality)
2.	Journal Reviewer	FCS (Frontiers of Computer Science)
3.	Web Chair	CSBSE 2013 (The Second Chinese Search Based Software Engineering Workshop)
4.	Volunteer	SAVE 2015 (Software Analysis and Verification workshop)
5.	Volunteer	YOSER 2015
6.	Volunteer	IEA/AIE 2012 (The 25th International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems)

Talks

Title: An Unsupervised Approach for Discovering Tutorial Fragments Explaining APIs
 Conference: the 39th International Conference on Software Engineering (ICSE'2017)
 Date: 24 May 2017

2. **Title:** A More Accurate Model for Finding Tutorial Segments Explaining APIs

Conference: the 23th International Conference on Software Analysis, Evolution, and

Reengineering (SANER'2016)

Date: 16 March 2016

3. **Title:** API Documentation Analysis

Conference: the 16th National Software Application Conference (NASAC'2017)

Date: 3 November 2017

Teaching Assistant

1.	Spring 2012	Software Engineering	for undergraduate students
2.	Fall 2012	Principle of Compiling	for undergraduate students
3.	Spring 2013	Discrete Mathematics	for undergraduate students
4.	Fall 2013	Operating System Principle	for undergraduate students
5.	Spring 2014	Discrete Mathematics	for undergraduate students

Personal

- 1. Good at the research of software engineering, especially software maintenance, requirements engineering, and software metrics.
- 2. Familiar with the research of machine learning, data mining, natural language processing, and recommendation system.
- 3. Good at Java (most of my research works and projects are written by Java).
- 4. Fluent in technical writing and speaking.
- 5. Good leadership and collaboration in a research team.