

# Yuan Tian

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## RESEARCH INTERESTS

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I am interested in Software Engineering with a focus on software maintenance & evolution, empirical studies, and social media analysis. Leveraging techniques from areas including machine learning, natural language processing, social network analysis, I have proposed models to aid software development & maintenance tasks by either automating manual process or discovering knowledge from large historical software repositories.

## EDUCATION

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*Ph.D.* , Software Engineering  
Singapore Management University, Singapore 2012 – 2017 (expected)  
Advisor: David Lo, Associate Professor  
GPA: 4.00/4.00

*B.S.* , Computer Science and Technology  
Chu Kochen Honors College  
Zhejiang University, China 2008 – 2012  
GPA: 3.87/4.00, ranks top 5% over 199 students

## HONORS

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- Best Paper Award in the ERA track of SANER, 2017.
- Invited by the National Research Foundation (NRF) of Singapore to attend the Royal Society Commonwealth Science Conference, 2016.
- SMU Presidential Doctoral Fellowship Award, 2015.
- Best Paper Award nomination, ICSM, 2013.
- Travel Grant for Female Students, Google and ICSM, 2013.
- Temasek Foundation Leadership Enrichment and Regional Networking Scholarship, Singapore, 2012.
- Excellent Student Awards, Zhejiang University, 2009

## RESEARCH EXPERIENCE

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*Institute for Software Research, Carnegie Mellon University, USA* 2015 – 2016  
Exchange PhD Student  
Advisor: Claire Le Goues

*Software Analysis and Intelligence Lab, Queen's University, Canada* May – August 2014  
Visiting Researcher  
Advisor: Ahmed E. Hassan and Meiyappan Nagappan

*LIP6, INRIA, Paris, France* November – December 2013  
Visiting Researcher  
Advisor: Julia Lawall

*School of Information Systems, Singapore Management University, Singapore* 2011 – 2012  
Visiting Undergraduate  
Advisor: David Lo

## PUBLICATIONS

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### *Conference & Workshop*

- [24] Harnessing Twitter to Support Serendipitous Learning of Developers  
A Sharma, Y Tian, A Sulistya, D Lo, A Yamashita  
24th IEEE International Conference on Software Analysis, Evolution, and Reengineering (**SANER ERA track**), 2017.
- [23] Learning to Rank for Bug Report Assignee Recommendation  
Y Tian, D Wijedasa, D Lo, CL Goues  
24th IEEE International Conference on Program Comprehension (**ICPC**), 2016.
- [22] What's Hot in Software Engineering Twitter Space?  
A Sharma, Y Tian, D Lo  
31st IEEE International Conference on Software Analysis, Evolution, and Reengineering (**ICSME**), 2015.
- [21] What are the Characteristics of High-Rated Apps? A Case Study on Free Android Applications  
Y Tian, M Nagappan, D Lo, A E. Hassan  
31st IEEE International Conference on Software Maintenance and Evolution (**ICSME**), 2015.
- [20] A Comparative Study on the Effectiveness of Part-of-Speech Tagging Techniques on Bug Reports  
Y Tian and D Lo  
22nd IEEE International Conference on Software Analysis, Evolution, and Reengineering (**SANER ERA track**), 2015.
- [19] NIRMAL: Automatic Identification of Software Relevant Tweets Leveraging Language Model  
A Sharma, Y Tian, D Lo  
22nd IEEE International Conference on Software Analysis, Evolution, and Reengineering (**SANER**), 2015.
- [18] Evaluating Defect Prediction Approaches Using A Massive Set of Metrics: An Empirical Study  
X Xuan, D Lo, X Xia, Y Tian  
30th ACM/SIGAPP Symposium On Applied Computing (**SAC**), 2015.
- [17] Potential Biases in Bug Localization: Do They Matter?  
PS Kochhar, Y Tian, D Lo  
29th International Conference on Automated Software Engineering (**ASE**), 2014.
- [16] An Exploratory Study on Software Microblogger Behaviors  
Y Tian and D Lo  
4th Workshop on Mining Unstructured Data, 2014.
- [15] SEWordSim: software-specific word similarity database  
Y Tian, D Lo, J Lawall  
36th International Conference of Software Engineering (**ICSE Tool track**), 2014.
- [14] BOAT: An Experimental Platform for Researchers to Comparatively and Reproducibly Evaluate Bug Localization Techniques  
X Wang, D Lo, X Xia, X Wang, PS Kochhar, Y Tian, X Yang, S Li, J Sun, B Zhou  
36th International Conference of Software Engineering (**ICSE Tool track**), 2014.
- [13] Automated Construction of a Software-Specific Word Similarity Database  
Y Tian, D Lo, J Lawall  
Software Evolution Week-IEEE Conference on Software Maintenance, Reengineering and Reverse Engineering (**CSMR-WCRE**), 2014

- [12] Predicting Best Answerers for New Questions: An Approach Leveraging Topic Modeling and Collaborative Voting  
Y Tian, PS Kochhar, EP Lim, F Zhu, D Lo  
Workshop of Quality, Motivation and Coordination of Open Collaboration, co-organized with SocInfo, 2013.
- [11] DRONE:Predicting Priority of Reported Bugs by Multi-Factor Analysis  
Y Tian, D Lo, C Sun  
29th IEEE International Conference on Software Maintenance (**ICSM**), 2013.
- [10] Predicting Project Outcome Leveraging Socio-Technical Network Patterns  
D Surian, Y Tian, D Lo, H Cheng, EP Lim  
17th European Conference on Software Maintenance and Reengineering (**CSMR**), 2013.
- [9] Automatic Classification of Software Related Microblogs  
PK Prasetyo, D Lo, A Palakorna, Y Tian, EP Lim  
28th IEEE International Conference on Software Maintenance (**ICSM ERA track**), 2012.
- [8] Information Retrieval Based Nearest Neighbor Classification for Fine-Grained Bug Severity Prediction  
Y Tian, D Lo, C Sun  
19th Working Conference on Reverse Engineering (**WCRE**), 2012.
- [7] Observatory of Trends in Software Related Microblogs  
A Palakorna, NL Ibrahim, Y Tian, D Lo, EP Lim  
27th International Conference on Automated Software Engineering (**ASE Tool track**), 2012.
- [6] What Does Software Engineering Community Microblog About?  
Y Tian, P Achananuparp, IN Lubis, D Lo, EP Lim  
10th Working Conference on Mining Software Repositories (**MSR**), 2012.
- [5] Improved Duplicate Bug Report Identification  
Y Tian, C Sun, D Lo  
16th European Conference on Software Maintenance and Reengineering (**CSMR**), 2012.
- [4] Identifying Linux Bug Fixing Patches  
Y Tian, J Lawall, D Lo  
34th International Conference of Software Engineering (**ICSE**), 2012.
- Journal**
- [3] On the unreliability of bug severity data  
Y Tian, N Ali, D Lo, and A.E. Hassan  
Empirical Software Engineering (**EMSE**), 2016.
- [2] Automated prediction of bug report priority using multi-factor analysis  
Y Tian, D Lo, X Xia, and C Sun  
Empirical Software Engineering (**EMSE**), 2015.
- Book Chapter**
- [1] Leveraging Web 2.0 for software evolution  
Y Tian and D Lo  
Evolving Software Systems, 2014.

## ACADEMIC SERVICES

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### *Journal Reviewer*

- Transactions on Software Engineering and Methodology (**TOSEM**).
- Transactions on Software Engineering (**TSE**).
- Transactions on Information Systems (**TOIS**).
- Empirical Software Engineering (**EMSE**).
- Information and Software Technology Journal (**IST**).

### *Conference External Reviewer*

- International Working Conference on Source Code Analysis & Manipulation (**SCAM**), 2016.
- Mining Software Repository (**MSR**), 2016, 2017.
- Empirical Software Engineering and Measurement (**ESEM**), 2016.
- Asia-Pacific Software Engineering Conference (**APSEC**), 2015.

### *Talks*

- Talk on “Bug Report Analytics” invited by Advanced Digital Sciences Center (**ADSC**), Singapore, 2016.
- Present paper in the 29th International Conference on Software Maintenance (**ICSM**), 2013.
- Present paper in the 28th International Conference on Software Maintenance (**ICSM**), 2012.

### *Conference Volunteer*

- The 31st IEEE/ACM International Conference on Automated Software Engineering (**ASE**), 2016.
- The 3rd International Conference on Social Informatics (**SocInfo**), 2011.

## REFERENCES

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David Lo (PhD advisor)  
Associate Professor, School of Information Systems,  
Singapore Management University,  
davidlo@smu.edu.sg

Ahmed E. Hassan (collaborator of EMSE2016 Journal paper, ICSME2015 paper)  
Professor, School of Computing,  
Queen’s University,  
ahmed@cs.queensu.ca

Julia Lawall (collaborator of ICSE2012 paper, dissertation committee member)  
Senior Research Scientist, Inria/LIP6  
julia.lawall@lip6.fr

Xin Xia (collaborator of EMSE2015 Journal paper)  
Research Assistant Professor, College of Computer Science and Technology,  
Zhejiang University,  
xxkidd@zju.edu.cn