Bowen Xu

Research Scientist (Post-Doc)
School of Computing and Information Systems   bowenxu.2017@phdcs.smu.edu.sg
Singapore Management University   https://www.bowenxu.me

Research Interests

- ✓ Mining Software Repository
- ★ Empirical Software Engineering
- ■ Program Comprehension and Analysis

Research Works

Google Scholar: `https://tinyurl.com/7f0741af`

⇒ **Conference Papers**

IC-SME'20 (CCF-B)
[C9] ✓ Ting Zhang, **Bowen Xu (*Corresponding Author*)**, Ferdian Thung, Stefanus Agus Haryono, David Lo, Lingxiao Jiang. "Sentiment Analysis for Software Engineering: How Far Can Pre-trained Transformer Models Go?". *36th IEEE International Conference on Software Maintenance and Evolution (ICSME 2020).*
(Acceptance Rate 50/201=24.9%)

PAKDD'19 (CCF-C)
[C8] ■ Heng-Yi Li, Shu-Ting Shi, Ferdian Thung, Xuan Huo, **Bowen Xu**, Ming Li, and David Lo. "DeepReview: Automatic Code Review using Deep Multi-Instance Learning". *The 23rd Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD 2019).*
(Acceptance Rate 137/567=24.1%)

ESEM'18 (CCF-B)
[C7] ✓ **Bowen Xu**, Amirreza Shirani, David Lo and Mohammad Amin Alipour. "Prediction of Relatedness in Stack Overflow: Deep Learning vs. SVM - A Reproducibility Study". *12th International Symposium on Empirical Software Engineering and Measurement (ESEM 2018). **Highly Commended Full Paper Award***
(Acceptance Rate 30/140=21.4%)

ASE'17 (CCF-A)
[C6] ✓ **Bowen Xu**, Zhenchang Xing, Xin Xia, David Lo. "AnswerBot - Automated Generation of Answer Summary to Developers' Technical Questions". *32nd IEEE/ACM International Conference on Automated Software Engineering (ASE 2017).*
(Acceptance Rate 65/314=20.7%)

ASE'16 (CCF-A)
[C5] ✓ **Bowen Xu**, Deheng Ye, Zhenchang Xing, Xin Xia, Guibin Chen, Shanping Li. "Predicting Semantically Linkable Knowledge in Developer Online Forums via Convolutional Neural Network". *31st IEEE/ACM International Conference on Automated Software Engineering (ASE 2016).*
(Acceptance Rate 57/298=19.1%)

ASE'16 (CCF-A)
[C4] ✓ Guibin Chen, Chunyang Chen, Zhenchang Xing, **Bowen Xu**. "Learning Dual-Language Vector Space for Domain-specific Cross-Lingual Question Retrieval". *31st IEEE/ACM International*

Conference on Automated Software Engineering (ASE 2016).

(Acceptance Rate 57/298=19.1%)

MSR'16
(CCF-C)
[C3] ✓ **Bowen Xu**, Zhenchang Xing, Xin Xia, David Lo, Qingye Wang, Shanping Li. "Domain-Specific Cross-Language Relevant Question Retrieval". 13th International Conference on Mining Software Repositories (MSR 2016). ***Invited to Empirical Software Engineering Journal***

(Acceptance Rate 36/103=35%)

ICECCS'15
(CCF-C)
[C2] ✓ Yun Zhang, David Lo, Xin Xia, **Bowen Xu**, Jianling Sun, Shanping Li. "Combining Software Metrics and Text Features for Vulnerable File Prediction". 20th International Conference on Engineering of Complex Computer Systems (ICECCS 2015).

(Acceptance Rate 17/71=23.9%)

APSEC'15
(CCF-C)
[C1] ✓ **Bowen Xu**, David Lo, Xin Xia, Ashish Sureka, Shanping Li. "EFSPredictor: Predicting Configuration Bugs With Ensemble Feature Selection". 22th Asia-Pacific Software Engineering Conference (APSEC 2015).

(Acceptance Rate 51/182=28.02%)

⇒ **Journal Papers**

TSE'20
(CCF-A)
[J3] ✓ **Bowen Xu**, HOANG Van Duc Thong, Abhishek SHARMA, Xin Xia, and David Lo. "Post2Vec: Learning Distributed Representations of Stack Overflow Posts". IEEE Transactions on Software Engineering (TSE).

EMSE'20
(CCF-B)
[J2] ★ ■ **Bowen Xu**, Le An, Ferdian Thung, Foutse Khomh, David Lo. "Why Reinventing the Wheels? An Empirical Study on Library Reuse and Re-implementation". Empirical Software Engineering (EMSE). ***Presented during ICSE 2020 as part of the Journal First Paper Track***

EMSE'17
(CCF-B)
[J1] ✓ **Bowen Xu**, Zhenchang Xing, Xin Xia, David Lo, Shanping Li. "Domain-Specific Cross-Language Relevant Question Retrieval". Empirical Software Engineering (EMSE).

⇒ **Tool Demo Papers**

ESEC/FSE'19
(CCF-A)
[T2] ✓ Liang Cai, Haoye Wang, **Bowen Xu**, Qiao Huang, Xin Xia, David Lo, Zhenchang Xing. "AnswerBot: An Answer Summary Generation Tool Based on Stack Overflow". The 27th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE 2019).

ESEC/FSE'17
(CCF-A)
[T1] ✓ **Bowen Xu**, Zhenchang Xing, Xin Xia, David Lo. "XSearch: A DomainSpecific Cross-Language Relevant Question Retrieval Tool". 11th joint meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering.

⇒ **Workshop Paper**

AAAI'19
RCQA
[W1] ✓ ★ Amirreza Shirani, **Bowen Xu**, David Lo, Thamar Solorio and Mohammad Amin Alipour. "Question Relatedness on Stack Overflow: The Task, Dataset, and Corpus-inspired Model". AAAI 2019 Reasoning and Complex QA Workshop.

⇒ **Recent/Unpublished Work**

[U1] ★ ■ **Bowen Xu**, Hongjin Kang, Jiajun Jiang, David Lo. "Systematically Benchmarking Example-Based Program Transformation Techniques on Bug-Fixing Changes".

Education

2017-2021	**Ph.D Candidate** in School of Computing and Information Systems, Singapore Management University, Singapore
	Supervised by Prof. David Lo (ACM Distinguished Member (Scientist))
2014-2017	**Master Degree** in School of Software Technology, Zhejiang University, China
	Supervised by Prof. Shanping Li and Prof. Xin Xia (Top 40 Young Researchers in Australia)
2010-2014	**Bachelor Degree** in College of Computer Science and Technology, Hunan City University, China

Working Experience

August - Present	**Research Scientist** in Software Analytics Research Group, Singapore Management University, Singapore
	Work with Prof. David Lo
May - July, 2017	**Research Associate** in Software Analytics Research Group, Singapore Management University, Singapore
	Supervised by Prof. David Lo
Feb - July, 2016	**Research Assistant** in Software Engineering Lab, Nanyang Technological University, Singapore
	Supervised by Prof. Zhenchang Xing

Professional Services

TOIS'20	**Journal Referee** for ACM Transactions on Information Systems (CCF-A).
JSS'20	**Journal Referee** for Journal of Systems and Software (CCF-C).

Teaching

2020	Teaching Assistant, Singapore Management University, IS706 - Software Mining and Analysis
	Students' Feedback: https://tinyurl.com/1t9xklsh
2019	Graduate Instructor Certification, Singapore Management University, Singapore.

Certifications, honors & awards

2020	Dean's List (top3%), Singapore Management University, Singapore.
2020	Presidential Doctoral Fellowship (top3%), Singapore Management University, Singapore.

2019   English Communication Skills for PhD Candidates Certification, British Council, Singapore.

2017   Excellent Graduate of Zhejiang Province, Ministry of Education of the People's Republic of Zhejiang Province (top3%), China.

2014   Scholarship of State Street (top5%), State Street Corp, U.S.A.

2012   National Scholarship (top3%), Ministry of Education of the People's Republic of China, China.