

JIAN ZHANG

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RESEARCH INTERESTS	My research interests focus on improving software maintenance via deep learning, especially I enjoy extending NLP techniques with the characteristics of source code for software quality/security analysis and remediation.	
EDUCATION & WORK	Research Fellow	2022/08-Present
	Nanyang Technological University, Singapore Supervisor: Yang Liu	
	PhD Degree	2016/09-2022/06
	Beihang University, Computer Science and Technology Thesis: Intelligent Source Code Maintenance based on Neural Networks Supervisor: Xudong Liu	
PUBLICATIONS	Bachelor's Degree	2012/09-2016/06
	Beihang University, Computer Science and Technology	
	(* for corresponding author)	
	ICLR'24 Yanzhou Li, Kangjie Chen, Tianlin Li, Jian Zhang , Shangqing Liu, Wenhan Wang, Tianwei Zhang, Yang Liu. "BadEdit: Backdooring Large Language Models by Model Editing". <i>Twelfth International Conference on Learning Representations, ICLR 2024. (Accepted)</i>	
ICSE'24 (CCF-A)	Wenhan Wang, Yanzhou Li, Anran Li, Jian Zhang , Wei Ma, Yang Liu. "An Empirical Study on Noisy Label Learning for Program Understanding". <i>46th International Conference on Software Engineering, ICSE 2024. (Accepted)</i>	
ICSE'24 (CCF-A)	Li Tianlin, Yue Cao, Jian Zhang* , Shiqian Zhao, Yihao Huang, Aishan Liu, Qing Guo, Yang Liu. RUNNER: Responsible UNfair NEuron Repair for Enhancing Deep Neural Network Fairness . <i>46th International Conference on Software Engineering, ICSE 2024.</i>	
ASE'23 (CCF-A)	Kai Huang, Xiangxin Meng, Jian Zhang* , Yang Liu, Wenjie Wang, Shuhao Li, Yuqing Zhang*. An Empirical Study on Fine-tuning Large Language Models of Code for Automated Program Repair . <i>38th IEEE/ACM International Conference on Automated Software Engineering, ASE 2023. ACM Distinguished Paper Award</i>	
ASE'23 (CCF-A)	Jian Zhang , Shangqing Liu, Xu Wang, Li Tianlin, Yang Liu. Learning to Locate and Describe Vulnerabilities . <i>38th IEEE/ACM International Conference on Automated Software Engineering, ASE 2023. (Acceptance rate: 134/630=21.3%)</i>	
ISSTA'23 (CCF-A)	Jian Zhang , Xu Wang, Hongyu Zhang, Hailong Sun, Xudong Liu, Chunming Hu, Yang Liu. " Detecting Condition-related Bugs with Control Flow Graph Neural Network ". <i>32nd ACM SIGSOFT International Symposium on Software Testing and Analysis, ISSTA 2023. (Acceptance</i>	

	rate: $117/406=28.8\%$)
BIGDATA'21	Jian Zhang , Xiangxin Meng, Hailong Sun, Xu Wang, Xudong Liu. " Data-driven intelligent collaboration of software developers ". <i>Big Data Research</i> , 2021, 7(1) (In Chinese)
ASE'20 (CCF-A)	Jian Zhang , Xu Wang, Hongyu Zhang, Hailong Sun, Yanjun Pu, Xudong Liu. " Learning to Handle Exceptions ". <i>35th IEEE/ACM International Conference on Automated Software Engineering, ASE 2020</i> . (Acceptance rate: $93/414=22.5\%$)
ICSE'20 (CCF-A)	Jian Zhang , Xu Wang, Hongyu Zhang, Hailong Sun, Xudong Liu. " Retrieval-based neural source code summarization ". <i>42nd International Conference on Software Engineering, ICSE 2020</i> . (Acceptance rate: $129/617=20.5\%$, Citations: 173)
ICSE'19 (CCF-A)	Jian Zhang , Xu Wang, Hongyu Zhang, Hailong Sun, Kaixuan Wang, Xudong Liu. " A novel neural source code representation based on abstract syntax tree ". <i>41st International Conference on Software Engineering, ICSE 2019</i> . (Acceptance rate: $109/529=21\%$, Citations: 564)
IJCNN'19	Mengjiao Bao, Jianxin Li, Jian Zhang , Hao Peng, Xudong Liu. " Learning Semantic Coherence for Machine Generated Spam Text Detection ". <i>International Joint Conference on Neural Networks, IJCNN 2019</i> .
ICSE'18 (CCF-A)	Jian Zhang , Hailong Sun, Yanfei Tian, Xudong Liu. " Semantically enhanced tag recommendation for software CQAs via deep learning ". <i>40th International Conference on Software Engineering, ICSE 2018</i> (Poster Track)

PROJECTS

2016/07-2019/06	Intelligent Collaboration of Developers based on Correlation Analysis <ul style="list-style-type: none"> Supported by National Key Research and Development Program of China. Contributions: 1) Serve as a Tech Lead of one team about 15 developers; 2) Design the architecture of the whole system (about 50000+ lines of code); 3) Build the knowledge graph of developers with more than 43 million nodes.
2020/01-2022/06	Data-driven Intelligent Source Code Development and Maintenance <ul style="list-style-type: none"> Supported by National Natural Science Foundation of China Contributions: 1) Work on the problems of source code representation and comment generation; 2) Write technical reports and papers.

HONORS AND AWARDS

• Distinguished Paper Award , ACM SIGSOFT	2023
• Outstanding Doctoral Dissertation, Beihang University	2023
• Outstanding Graduate Student, Beihang University	2022
• Outstanding Research Paper Award, Beihang University	2020
• National Scholarship for PhD , Ministry of Education of P.R.China	2019
• Merit Student Award, Beihang University	2019

- Merit Student Award, Beihang University 2018
- Merit Student Award, Beihang University 2017
- Grand Prize of Big Data and Computing Intelligence Competition, China Computer Federation 2017
- **1st Prize (1/415)** of Big Data and Computing Intelligence Competition Problem 3, China Computer Federation 2017
- 2nd Prize (3/589) of Big Data and Computing Intelligence Competition Problem 4, China Computer Federation 2017
- Outstanding Undergraduate Award, Beihang University 2016
- National Encouragement Scholarship, Ministry of Education of P.R.China 2015

SERVICES

PC/Reviewer:

- The First International Workshop on Large Language Models for Code (LLM4Code 2024)
- 39th IEEE/ACM International Conference on Automated Software Engineering (ASE 2024)
- The 2024 ACM Web Conference (WWW 2024)
- 21st International Conference on Mining Software Repositories (MSR 2024)
- 28th International Conference on Engineering of Complex Computer Systems (ICECCS 2024)
- 28th IEEE Pacific Rim International Symposium on Dependable Computing (PRDC 2023)
- Journal of Systems and Software (JSS), 2020