

Zhenpeng CHEN

Ph.D. Candidate

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Research Interests

Software analytics: analyze data in software life cycle to help improve user experience, software quality, and development productivity

Education

- **Peking University, Beijing, China** 09/2018 – 07/2021 (expected)
Ph.D. in Computer Science
Advisor Prof. Hong Mei and co-advisor Prof. Xuanzhe Liu
- **Peking University, Beijing, China** 09/2016 – 08/2018
M.S. in Computer Science
Advisor Prof. Xuanzhe Liu
- **Peking University, Beijing, China** 09/2012 – 07/2016
B.S. in Computer Science, B.A. in Economics (dual degree)
- **National Chiao Tung University, Taiwan** 09/2014 – 01/2015
Undergraduate Exchange Student at the College of Computer Science

Refereed Publications

- [1] Chengxu Yang, Yuanchun Li, Mengwei Xu, **Zhenpeng Chen**, Yunxin Liu, Gang Huang, Xuanzhe Liu. TaintStream: Fine-grained Taint Tracking for Big Data Platforms through Dynamic Code Translation. In *Proceedings of the ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE 2021)*, August 23-27, 2021, Athens, Greece.
- [2] Jinfeng Wen, **Zhenpeng Chen**, Yi Liu, Yiling Lou, Yun Ma, Gang Huang, Xin Jin, Xuanzhe Liu. An Empirical Study on Challenges of Application Development in Serverless Computing. In *Proceedings of the ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE 2021)*, August 23-27, 2021, Athens, Greece.
- [3] **Zhenpeng Chen**, Huihan Yao, Yiling Lou, Yanbin Cao, Yuanqiang Liu, Haoyu Wang, Xuanzhe Liu. An Empirical Study on Deployment Faults of Deep Learning Based Mobile Applications. In *Proceedings of the 43rd International Conference on Software Engineering (ICSE 2021)*, pp.674-685, May 23-29, 2021, Madrid, Spain.
- [4] Chengxu Yang, Qipeng Wang, Mengwei Xu, **Zhenpeng Chen**, Kaigui Bian, Yunxin Liu, Xuanzhe Liu. Characterizing Impacts of Heterogeneity in Federated Learning upon Large-Scale Smartphone Data. In *Proceedings of the 2021 World Wide Web Conference (WWW 2021)*, accepted to appear, April 19-23, 2021, Ljubljana, Slovenia.

- [5] **Zhenpeng Chen**, Yanbin Cao, Huihan Yao, Xuan Lu, Xin Peng, Hong Mei, Xuanzhe Liu. Emoji-Powered Sentiment and Emotion Detection from Software Developers' Communication Data. In *ACM Transactions on Software Engineering and Methodology (TOSEM 2021)*, 30(2): 18:1-18:48, 2021.
- [6] **Zhenpeng Chen**, Yanbin Cao, Yuanqiang Liu, Haoyu Wang, Tao Xie, Xuanzhe Liu. A Comprehensive Study on Challenges in Deploying Deep Learning Based Software. In *Proceedings of the ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE 2020)*, pp.750-762, November 8-13, 2020, Sacramento, USA.
- [7] Yiling Lou, **Zhenpeng Chen**, Yanbin Cao, Dan Hao, Lu Zhang. Understanding Build Issue Resolution in Practice: Symptoms and Fix Patterns. In *Proceedings of the ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE 2020)*, pp.617-628, November 8-13, 2020, Sacramento, USA.
- [8] **Zhenpeng Chen**, Sheng Shen, Ziniu Hu, Xuan Lu, Qiaozhu Mei, Xuanzhe Liu. Emoji-Powered Representation Learning for Cross-Lingual Sentiment Classification (Extended Abstract). In *Proceedings of the Twenty-Ninth International Joint Conference on Artificial Intelligence (IJCAI 2020)*, pp.4701-4705, July 11-17, 2020, Yokohama, Japan. **(Invited paper)**
- [9] Chen Qian, Fuli Feng, Lijie Wen, **Zhenpeng Chen**, Li Lin, Yanan Zheng, Tat-Seng Chua. Solving Sequential Text Classification as Board-Game Playing. In *Proceedings of the Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI 2020)*, pp.8640-8648, February 7-12, 2020, New York, USA.
- [10] **Zhenpeng Chen**, Yanbin Cao, Xuan Lu, Qiaozhu Mei, Xuanzhe Liu. SentiMoji: An Emoji-Powered Learning Approach for Sentiment Analysis in Software Engineering. In *Proceedings of the ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE 2019)*, pp.841-852, August 26-30, 2019, Tallinn, Estonia.
- [11] **Zhenpeng Chen**, Sheng Shen, Ziniu Hu, Xuan Lu, Qiaozhu Mei, Xuanzhe Liu. Emoji-Powered Representation Learning for Cross-Lingual Sentiment Classification. In *Proceedings of the 2019 World Wide Web Conference (WWW 2019)*, pp.251-262, May 13-17, 2019, San Francisco, USA. **Best Full Paper Award (First WWW Best Paper from China)**
- [12] **Zhenpeng Chen**, Xuan Lu, Wei Ai, Huoran Li, Qiaozhu Mei, Xuanzhe Liu. Through a Gender Lens: Learning Usage Patterns of Emojis from Large-Scale Android Users. In *Proceedings of the 2018 World Wide Web Conference (WWW 2018)*, pp.763-772, April 23-27, 2018, Lyon, France.
- [13] Xuan Lu, **Zhenpeng Chen**, Xuanzhe Liu, Huoran Li, Tao Xie, Qiaozhu Mei. PRADO: Predicting App Adoption by Learning the Correlation between Developer-Controllable Properties and User Behaviors. In *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (UbiComp 2017)*, 1(3):79:1-79:30, September 11-15, 2017, MAUI, USA.

Teaching Experience

09/2017-07/2020	Undergraduate student instructor (for 60 undergraduate students), EECS, Peking University
Spring 2020	Teaching assistant, Scientific Writing, Peking University
Fall 2019	Teaching assistant, Foundations of Computer Application, Peking University
Spring 2019	Teaching assistant, Foundations of Computer Application, Peking University
Fall 2018	Teaching assistant, Foundations of Computer Application, Peking University
Spring 2018	Teaching assistant, Data Structure and Algorithm, Peking University
Fall 2017	Teaching assistant, Foundations of Computer Application, Peking University

Spring 2017 Teaching assistant, Data Structure and Algorithm, Peking University
 Fall 2016 Teaching assistant, Foundations of Computer Application, Peking University

Academic Services

Journal reviewer ACM Transactions on the Web (TWEB)
 ACM Transactions on Internet Technology (TOIT)
 Elsevier Neurocomputing (Neurocomputing)

PC member ESEC/FSE 2021, Industry Track
 Emoji@ICWSM 2021
 SEmotion@ICSE 2021
 MSR 2021, Shadow PC
 IEEE EDGE 2020

Co-reviewer 2021: ICSE, WWW, SIGIR
 2020: WWW, SIGIR, KDD, CIKM, ICSE-SEIP
 2019: WWW, SIGIR, KDD, CIKM
 2018: WWW, KDD, CIKM
 2017: KDD, CIKM

Honors and Awards

2021 Outstanding Graduate of Beijing, China
 2021 Outstanding Graduate, Peking University
 2020 May 4th Medal, **highest honor for students at Peking University** (10 recipients every 2 years)
 2020 Person of the Year 2020, Peking University (10 recipients every years)
 2020 National Scholarship, **Chinese Ministry of Education**
 2020 Merit Student Pacesetter, Peking University
 2020 President Scholarship, Peking University
 2020 Tang Lixin Scholarship, Peking University
 2019 Microsoft Research Asia Fellowship, Microsoft (**12 recipients from the Asia-Pacific region**)
 2019 Best Full Paper Award, WWW 2019 (**First WWW Best Paper from China**)
 2019 National Scholarship, **Chinese Ministry of Education**
 2019 President Scholarship, Peking University
 2019 Tang Lixin Scholarship, Peking University
 2019 Exceptional Award for Academic Innovation, Peking University
 2019 Top-ten Research Excellence Award, EECS, Peking University
 2019 Merit Student, Peking University
 2018 CETC The 14th Research Institute Glarun Scholarship, Peking University
 2018 Exceptional Award for Academic Innovation, Peking University
 2018 Merit Student Pacesetter, Peking University
 2018 President Scholarship, Peking University
 2017 National Scholarship, **Chinese Ministry of Education**
 2017 Merit Student, Peking University
 2016 Outstanding Graduation Thesis, EECS, Peking University
 2015 May 4th Scholarship, Peking University
 2015 Award for Scientific Research, Peking University
 2014 Award for Learning Excellence, Peking University