Kunsong Zhao

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Education

Wuhan University	**Wuhan, China**
M.Sc., Software Engineering (GPA: 88.47/100, top 10%),	*Sept. 2019 – Jun. 2022*

Hubei University	**Wuhan, China**
B.Sc., Software Engineering (GPA: 88.63/100, top 3%),	*Sept. 2015 – Jun. 2019*

Research Interests

Machine Learning; Deep Learning; Natural Language Processing

Publications

1. **Kunsong Zhao**, Jin Liu, Zhou Xu, Li Li, Meng Yan, Jiaojiao Yu, and Yuxuan Zhou. "Predicting Crash Fault Residence via Simplified Deep Forest Based on A Reduced Feature Set". The 29th IEEE/ACM International Conference on Program Comprehension (**ICPC, CCF-B**), 2021.

2. Zhiwen Xie, Runjie Zhu, **Kunsong Zhao**, Jin Liu, Guangyou Zhou, and Jimmy Xiangji Huang. "Dual Gated Graph Attention Networks with Dynamic Iterative Training for Cross-Lingual Entity Alignment". ACM Transactions on Information Systems (**TOIS, JCR Q1, CCF-A**), 2021.

3. **Kunsong Zhao**, Zhou Xu, Tao Zhang, Yutian Tang, and Meng Yan. "Simplified Deep Forest Model based Just-In-Time Defect Prediction for Android Mobile Apps". **IEEE Transactions on Reliability (JCR Q1)**, 2021.

4. **Kunsong Zhao**, Zhou Xu, Meng Yan, Tao Zhang, Dan Yang, and Wei Li. "A Comprehensive Investigation of the Impact of Feature Selection Techniques on Crashing Fault Residence Prediction Models". Information and Software Technology (**IST, JCR Q2, CCF-B**), 2021.

5. **Kunsong Zhao**, Zhou Xu, Meng Yan, Lei Xue, Wei Li, and Gemma Catolino. "A Compositional Model for Effort-Aware Just-In-Time Defect Prediction on Android Apps". IET Software (**CCF-B**), 2021.

6. Zhou Xu*, **Kunsong Zhao***, Meng Yan, Peipei Yuan, Ling Xu, Yan Lei, and Xiaohong Zhang. "Imbalanced Metric Learning for Crashing Fault Residence Prediction". Journal of Systems and Software (**JSS, JCR Q1, CCF-B**), 2020.

7. Zhou Xu, **Kunsong Zhao**, Tao Zhang, Chunlei Fu, Meng Yan, Zhiwen Xie, Xiaohong Zhang, and Gemma Catolino. "Effort-Aware Just-in-Time Bug Prediction for Mobile Apps via Cross-triplet Deep Feature Embedding". **IEEE Transactions on Reliability (JCR Q1)**, 2021.

8. Zhiwen Xie, Runjie Zhu, **Kunsong Zhao**, Jin Liu, Guangyou Zhou, and Jimmy Xiangji Huang. "A Contextual Alignment Enhanced Cross Graph Attention Network for Cross-lingual Entity Alignment". Proceedings of the 28th International Conference on Computational

Linguistics (**COLING, CCF-B**), 2020.

Research Experiences

In the past, I mainly focused on software crash localization and defect prediction, especially in Android mobile apps, working with Assistant Professor Zhou Xu. By mining historical information in software repositories, we exploit machine learning and deep learning techniques to build appropriate prediction models, aiming at helping programming practitioners improve code quality with fewer effort. The relevant papers have been published in the influential journals and conferences in the field of software engineering.

Later, due to my interest in natural language processing, I worked with Dr. Zhiwen Xie about knowledge graph entity alignment task. Our work were published in COLING 2020 and TOIS 2021.

In the future, I plan to develop improved models to deal with the NLP tasks and explore the new problems in NLP, such as interpretability.

Selected Awards

- China Mobile Internet Innovation Contest (Second-class Award), 2017.

- Mathematical Contest In Modeling/Interdisciplinary Contest In Modeling (Meritorious Winner), 2018.

- Excellent Graduate Award, 2019.

- The second-grade scholarship at Wuhan University, 2020.

- Outstanding postgraduate student at Wuhan University, 2020.

- Link Prediction of Antiviral Drug Atlas in Coronavirus Research, China Conference on Knowledge Graph and Semantic Computing (CCKS). First Prize, 2020.

Skills

Programming Language: Python (TensorFlow and PyTorch), Java.

Language: Chinese, English.