

Personal Information

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Education

- 2016–2021 **PhD Candidate in Computer Science and Technology**,
Beijing Institute of Technology, China,
Supervisor: Prof. Lejian Liao; Prof. Yang Gao.
- 2019– **Visiting PhD Student in Information Systems Technology and Design**,
Singapore University of Technology and Design, Singapore,
Supervisor: Prof. Wei Lu.
- 2013–2016 **Master in Computer Applications Technology**,
Guangxi University for Nationalities, China,
Supervisor: Prof. Yongquan Zhou.
GPA – **3.75/4**. Rank **1st**
- 2009–2013 **Bachelor in Computer Science and Technology**,
Yangtze University College of Technology & Engineering, China.

Awards

- 2019–2020 **National Scholarship**, China Scholarship Council No. 201906030188
- 2016–2020 **Second-class Ph.D. Academic Scholarship**, Beijing Institute of Technology
- 2017 **Outstanding Postgraduate Cadre**, Beijing Institute of Technology
- Jun 2016 **Excellent Graduation Thesis**, Guangxi University for Nationalities
- Jun 2016 **Outstanding Students Graduates Award**, Guangxi University for Nationalities
- 2015 **Best Paper Award**, ICIC 2015
- 2013–2016 **First-class M.S. Academic Scholarship**, Guangxi University for Nationalities
- Sep 2009 - Jun 2013 **National Scholarship, Academic Scholarship, School-level Scholarship**, Yangtze University
College Of Engineering Technology

Research Areas

Natural language processing and machine learning algorithms, with a specific focus on sentiment analysis, summarization, and pre-trained language models.

Skills

- Python, C++, Shell, the basic algorithms of deep learning, and quickly design and implement network models
- A relatively strong research ability, including reading, writing, programming skills
- Excellent command of English, able to communicate and collaborate academically in an English-speaking environment

Activities

- Attend 2019/2020 Singapore Symposium on Natural Language Processing, Singapore
- Attend Eleventh International Conference on Intelligent Computing, Fuzhou, China **Oral** “Drift Operator for States of Matter Search Algorithm” on the topic of Knowledge Discovery
- Reviewers: ICIC 2016, COLING 2020, ACL 2021, EMNLP 2021, ACML21, ICDM 2021

Professional Experience

2019.9 – **Singapore University of Technology and Design**, Supervisor: Prof. Wei Lu.

Focus on the research of structure-based latent variable models.

- Fine-grained Sentiment Analysis: We tailor a novel latent variable model, which is able to help us learn the structural bias to facilitate the interactions between target and opinion words in ABSA task (Accepted by **EMNLP'21**).
- Information Extraction: We propose a novel model that can better predict document-level relations by sequentially inducing a coarse- and fine-grained latent structure of a document.
- Controllable Text Generation: Try to paraphrase the summary using structure prior knowledge, and generate diverse samples with similar semantics but different structures through contrastive learning.

2020 – **National Key Research and Development Program of China (2020AAA0106600)**.

Focus on the research of Chinese semantic understanding technology.

- Classification of Traditional Chinese Medicine Based on Pre-trained Language Model: We propose a Large Dataset for Syndrome Differentiation in Traditional Chinese Medicine (Submitted to AAAI 2022).

2018.1-2020.12 **National Natural Science Foundation of China (61751201)**.

Focus on the research of knowledge extraction technology based on topic semantic information.

- Topic-enhanced Pre-trained Language Model: We propose TopicBERT with two variants to explore latent topics at the corpus-level while fine-tuning BERT (Published in **TNNLS**).

2017.3-2021.2 **National Key Research and Development Program of China (2016QY03D0602)**.

Focus on the research of noise cleaning technology.

- Knowledge extraction technology based on redundancy reduction: We propose a novel module to construct discriminative filters by encouraging dissimilarity between filters, which largely avoiding the filter redundancy, especially as the increasing number of filters (Published in **Information Sciences**).

Paper under reviewing

- [1] Mucheng Ren, Heyan Huang, **Yuxiang Zhou**, Yuan Bu and Yang Gao. "TCM-SD: A Large Dataset for Syndrome Differentiation in Traditional Chinese Medicine" *In Proceedings of AAAI 2022*.

Publications

- [1] **Yuxiang Zhou**, Lejian Liao, Yang Gao, Zhanming Jie, Wei Lu. "To be Closer: Learning to Link up Aspects with Opinions" *In Proceedings of EMNLP*. (2021). (**Top-tier conference**)
- [2] **Yuxiang Zhou**, Lejian Liao, Yang Gao, Rui Wang and Heyan Huang. "TopicBERT: A Topic-enhanced Neural Language Model Fine-tuned for Sentiment Classification" [J]. *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*. (**Top-tier journal, IF:10.451**)
- [3] **Yuxiang Zhou**, Lejian Liao, Yang Gao and Heyan Huang. "Extracting salient features from convolutional discriminative filters" [J]. *Information Sciences*, (2021), 558: 265–279. (**Top-tier journal, IF: 6.795**)
- [4] **Yuxiang Zhou**, Lejian Liao, Yang Gao and Heyan Huang. "A Discriminative Convolutional Neural Network with Context-aware Attention" [J]. *ACM Transactions on Intelligent Systems and Technology (TIST)*, (2020), Vol. 11, No. 5. (**SCI, IF: 2.672**)
- [5] Wenbo Wang, Yang Gao, Heyan Huang and **Yuxiang Zhou**. "Concept Pointer Network for Abstractive Summarization" [C]. *In Proceedings of EMNLP*, (2019): 3076-3085. (**Top-tier conference**)
- [6] Shilei Qiao, Yongquan Zhou, **Yuxiang Zhou**, Rui Wang. "A simple water cycle algorithm with percolation operator for clustering analysis" *Soft Computing*, (2019), 23(12): 4081-95. (**SCI, IF: 3.05**)
- [7] Yongquan Zhou, **Yuxiang Zhou**, Qifang Luo, Mohamed Abdel-Basset. "A simplex method-based social spider optimization algorithm for clustering analysis" [J]. *Engineering Applications of Artificial Intelligence (EAAI)*, (2017), 64: 67-82. (**First author: Supervisor, SCI, IF: 4.20**)
- [8] **Yuxiang Zhou**, Yongquan Zhou, Qifang Luo, Shilei Qiao, Rui Wang. "A Novel Complex-Valued Social Spider Optimization Algorithm" [J]. *Journal of Computational and Theoretical Nanoscience*, (2016), 13: 3273-3289. (**EI**)
- [9] **Yuxiang Zhou**, Yongquan Zhou, Qifang Luo, Shilei Qiao, Rui Wang. "Drift Operator for States of Matter Search Algorithm" [C]. *International Conference on Intelligent Computing (ICIC)*, pp 65-71, (2015). (**SCI**)
- [10] Shilei Qiao, Yongquan Zhou, Rui Wang, **Yuxiang Zhou** Rui Wang. "Self-adaptive Percolation Behavior Water Cycle Algorithm" [C]. *International Conference on Intelligent Computing (ICIC)*, pp 85-96, (2015). (**SCI**)