# Yu Bai

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# **RESEARCH INTERESTS**

### Cross-Lingual Summarization; Natural Language Generation.

- My current research interest is Text Summarization and Cross-Lingual Summarization (CLS) on new domain data and low resource languages. I think the main problem here is the scarcity of the specific parallel data. Hence, I am planning to improve this task from two perspectives.
- The first is to leverage extra data from similar tasks to enhance the performance of these summarization tasks.
- The second is to investigate the implicit attributes of the summarization task. These attributes can be potentially utilized to improve the generalization ability of CLS models.

## EDUCATION

### Beijing Institute of Technology, Beijing, China

- Ph.D. Student of Computer Science and Technology.
- Adviser: Prof. Yang Gao; Prof. Heyan Huang.
- Grades: 3.91/4 Rank: 1/149

### China University of Geosciences (Beijing), Beijing, China

• B.S. in Computer Science and Technology.

# PUBLICATIONS

### Cross-Lingual Abstractive Summarization with Limited Parallel Resources

### Yu Bai, Yang Gao, Heyan Huang.

The Joint Conference of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (ACL-IJCNLP 2021). arXiv:2105.13648.

### Unifying Cross-lingual Summarization and Machine Translation with Compression Rate

**Yu Bai**, Heyan Huang, Kai Fan, Yang Gao, Yiming Zhu, Jiaao Zhan, Zewen Chi, Boxing Chen. *The 45th International ACM SIGIR Conference on Research and Development in Information Retrieval (ACM SIGIR 2022). arXiv:2110.07936.* 

### Exploring Explainable Selection to Control Abstractive Summarization

Haonan Wang, Yang Gao, **Yu Bai**, Mirella Lapata, Heyan Huang. *The Thirty-Fifth AAAI Conference on Artificial Intelligence (AAAI-21). arXiv:2004.11779.* 

### Stage-wise Stylistic Headline Generation: Style Generation and Summarized Content Insertion

Jiaao Zhan, Yang Gao, **Yu Bai**, Qianhui Liu. Proceedings of the Thirty-First International Joint Conference on Artificial Intelligence Main Track (IJCAI 2022). DOI:10.24963/ijcai.2022/623.

### Multiple Perspective Answer Reranking for Multi-passage Reading Comprehension

Mucheng Ren, Heyan Huang, Ran Wei, Hongyu Liu, **Yu Bai**, Yang Wang, Yang Gao. *The 8th CCF International Conference on Natural Language Processing and Chinese Computing (NLPCC 2019).* DOI:10.1007/978-3-030-32236-6\_6w7.

### PSP: Pre-trained Soft Prompts for Few-Shot Abstractive Summarization

Xiaochen Liu, **Yu Bai**, Jiawei Li, Yinan Hu, Yang Gao *arXiv Preprint*. (Submitted to COLING 2022). *arXiv:2204.04413*.

2015.09 - 2019.06

2019.09 - Now

### Non-autoregressive Translation with Dependency-Aware Decoder

Jiaao Zhan, Qian Chen, Boxing Chen, Wen Wang, **Yu Bai**, Yang Gao *arXiv Preprint*. (Submitted to ICML 2022). *arXiv:2203.16266*.

### Cross-Lingual Language Model Meta-Pretraining

Zewen Chi, Heyan Huang, Luyang Liu, **Yu Bai**, Xian-Ling Mao. *arXiv Preprint. arXiv:2109.11129.* 

## COMPETITIONS

### **Collegiate Programming Contests**

- Bronze Medal in ACM/ICPC Asia Regional Qingdao Site 2017.
- Bronze Medal in ACM/ICPC Asia Regional Nanning Site 2017.
- Bronze Medal in The 3rd China Collegiate Programming Contest (Harbin), 2017.

### **2019 Language and Intelligence Challenge: Machine Reading Comprehension** 2019.03-2019.05

- Bronze Award Rank 5.
- Participated in the competition with four partners and designed a multi-document reading comprehension system. The model performed well by applying BERT and posterior knowledge to rerank the answers. The method used in the competition was published in NLPCC 2019. I am mainly responsible for the emotional polarity judgment model (positive/negative) in the system and the writing of related parts of the paper.

### HONORS AND AWARDS

### First-class Ph.D. Academic Scholarship, BIT

• This award program recognizes top 5 Ph.D. students majored in computer science every year.

#### First-class Undergraduate Scholarship, CUGB

• Scholarship for undergraduate students, selects top 5% by last semester's GPA.

### **PROFESSIONAL ACTIVITIES**

#### **Program Committee / Reviewer**

• ACL Rolling Review, EMNLP 2022, CCL 2022, ACL 2021, AAAI 2021, EMNLP 2021...

### **Student Program Committee**

• NLGIW 2021 (The Conference of Natural Language Generation and Intelligent Writing).

### TEACHING

#### Selected Topics In New Technology for Computer.

- Beijing Institute of Technology, Beijing, China.
- Teaching Assistant.

### **ICPC** Algorithm Design.

- China University of Geosciences (Beijing), Beijing, China.
- Served as a student instructor to a team of contestants training for the ACM-sponsored international collegiate programming contest, gave regular lectures of advanced algorithm design and analysis.

### PROGRAMMING LANGUAGES

- Python, C/C++, LATEX, Java, Bash under Linux/Unix.
- PyTorch, Keras.

### 2017.10-2017.12

2019.09 - 2021.09

2018.03 - 2018.12