Jianing Wang

PH.D STUDENT · DATA SCIENCE

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Education

East China Normal University (ECNU) *Shanghai, China*

PH.D IN DATA SCIENCE AND ENGINEERING *September 2019 - June 2024*

- Research Interests: Language Modeling, Few-shot Learning, Information Extraction, Question Answering

Jiangsu University of Science and Technology (JUST) *Soochow, China*

BENG IN SOFTWARE ENGINEERING *GPA: 4.05/5.0* *September 2015 - June 2019*

- Curriculum: Operating System, Data Science, Machine Learning, Database, Java Web, *etc.*

Research and Work Experience

Alibaba Group, Platform of AI *Hangzhou, China*

CO-ADVISORS: DR. CHENGYU WANG AND DR. MINGHUI QIU *Wednesday 2021 - Present*

- Remote Research Intern: Large Language Model, Prompt-tuning, Few-shot Learning

Ant Group, Insurance Technology Research *Shanghai, China*

ADVISOR: DR. HONGBING WANG *June 2021 - August 2022*

- Research Intern: Chinese Spelling Correction, Knowledge-enhanced Language Model

School of Data Science and Engineering, East China Normal University *Shanghai, China*

CO-ADVISORS: PROF. MING GAO AND A. PROF. XIANG LI *September 2019 - June 2024*

- Ph.D Research: Knowledge Graph, Information Extraction, Question Answering, Code Representations

Honors and Awards

2022 **Artificial Intelligence World Innovations, Second Place**, WAIC Conference *RMB 20,000*
CLUE Benchmarks Version 1.1, The 15-th Place, CLUE
"Huaxin" Enterprise Scholarship, East China Normal University *RMB 15,000*

2021 **Outstanding Student**, East China Normal University
"Huaxin" Enterprise Scholarship, East China Normal University *RMB 15,000*

2020 **Second Prize**, The 17th China Post-Graduate Mathematical Contest in Modeling

Publications

PUBLISHED PAPERS & PREPRINTS

(* indicate equal contribution. First Author: 8 papers, Accepted: 8 papers, Total: 15 papers. Click here to see more.)

[1] **Jianing Wang**, Chengyu Wang, Jun Huang, Ming Gao and Aoying Zhou. *Uncertainty-aware Self-training for Neural Sequence Labeling*. **AAAI 2023**, Washington D.C., US. [Paper]

[2] **Jianing Wang**, Wenkang Huang, Minghui Qiu, Qiuhui Shi, Hongbin Wang, Xiang Li and Ming Gao. *Knowledge Prompting in Pre-trained Language Model for Natural Language Understanding*. **EMNLP 2022**, Abu Dhabi, UAE. [Paper]

[3] **Jianing Wang***, Chengyu Wang*, Minghui Qiu, Qiuhui Shi, Hongbin Wang, Jun Huang and Ming Gao. *KECP: Knowledge-Enhanced Contrastive Prompting for Few-shot Extractive Question Answering*. **EMNLP 2022**, Abu Dhabi, UAE. [Paper]

[4] **Jianing Wang**, Chengyu Wang, Chuanqi Tan, Minghui Qiu, Songfang Huang, Jun Huang and Ming Gao. *SpanProto: A Two-stage Span-based Prototypical Network For Few-shot Named Entity Recognition*. **EMNLP 2022**, Abu Dhabi, UAE. [Paper]

[5] **Jianing Wang***, Chengyu Wang*, Fuli Luo, Chuanqi Tan, Minghui Qiu, Fei Yang, Qiuhui Shi, Songfang Huang and Ming Gao. *Towards Unified Prompt Tuning for Few-shot Text Classification*. **Findings of EMNLP 2022**, Abu Dhabi, UAE. [Paper]

[6] **Jianing Wang**, Chengyu Wang, Chuanqi Tan, Songfang Huang, Jun Huang and Ming Gao. *Knowledgeable In-Context Tuning: Exploring and Exploiting Knowledge for In-Context Learning*. **Under-Review of ACL 2023**.

[7] **Jianing Wang**, Qiushi Sun, Nuo Chen, Chengyu Wang, Ming Gao and Jun Huang. *Uncertainty-aware Parameter-Efficient Self-training for Semi-supervised Language Understanding*. **Under-Review of ACL 2023**.

[8] **Jianing Wang**, Nuo Chen, Qiushi Sun, Wenkang Huang, Chengyu Wang and Ming Gao. *HugNLP: A Unified and Comprehensive Library for Natural Language Processing.* **Under-Review of ACL 2023 System Demonstration**. [Paper]

[9] Chengyu Wang*, **Jianing Wang***, Minghui Qiu, Jun Huang and Ming Gao. *TransPrompt: Towards an Automatic Transferable Prompting Framework for Few-shot Text Classification*. **Findings of EMNLP 2021**, Online. [Paper]

[10] Taolin Zhang, Junwei Dong, **Jianing Wang**, Chengyu Wang, Ang Wang, Yinghui Liu, Jun Huang, Yong Li, Xiaofeng He. *Revisiting and Advancing Chinese Natural Language Understanding with Accelerated Heterogeneous Knowledge Pretraining*. **EMNLP 2022 Industry Paper**, Abu Dhabi, UAE. [Paper]

[11] Qiushi Sun, Nuo Chen, **Jianing Wang**, Xiang Li and Ming Gao. *TransCoder: Towards Unified Transferable Code Representation Learning Inspired by Human Skills*. **Under-Review of TACL**.

[12] Nuo Chen, Qiushi Sun, **Jianing Wang**, Xiang Li and Ming Gao. *Pass-Tuning: Towards Structure-Aware Parameter-Efficient Tuning for Code Representation Learning*. **Under-Review of TACL**.

[13] Moming Tang, Chengyu Wang, **Jianing Wang**, Chuanqi Tan, Songfang Huang, Cen CHEN and Weining Qian. *XtremeCLIP: Extremely Parameter-efficient Tuning for Low-resource Vision Language Understanding*. **Under-Review of ACL 2023**.

[14] Chengcheng Han, Renyu Zhu, **Jianing Wang**, Nuo Chen, Qiushi Sun, Xiang Li and Ming Gao. *When Gradient Descent Meets Derivative-Free Optimization: A Match Made in Black-Box Scenario*. **Under-Review of ACL 2023**.

[15] Chengyu Wang, Minghui Qiu, Taolin Zhang, Tingting Liu, Lei Li, **Jianing Wang**, Ming Wang, Jun Huang, Wei Lin. *EasyNLP: A Comprehensive and Easy-to-use Toolkit for Natural Language Processing*. **EMNLP 2022 System Demonstration**, Abu Dhabi, UAE. [Paper]

Teaching Experience

2022 **Teaching Assistant**, Algorithm Foundations for Data Science and Engineering
Instructed by Prof. Ming Gao, School of Data Science and Engineering, ECNU

2022 **Teaching Assistant**, Data Middle Platform
Instructed by A. Prof. Cen Chen, School of Data Science and Engineering, ECNU

Projects

2022 - 2023 **EasyNLP Open-source Toolkit**, [GitHub] [Paper]
Supported by Alibaba Group through Alibaba Innovative Research Program., EasyNLP is an easy-to-use NLP development and application toolkit in PyTorch, first released inside Alibaba in 2021. It is built with scalable distributed training strategies and supports a comprehensive suite of NLP algorithms for various NLP applications.

2022 - 2023 **HugNLP Library**, [GitHub] [Paper]
supported by the National Natural Science Foundation of China., HugNLP is a novel development and application library based on HuggingFace for improving the convenience and effectiveness of NLP researchers. Researchers can use it to perform NLP experiments, such as text classification, question answering, instruction-tuning, etc.

Others

Skills

Programming Skills: Python, PyTorch, Transformers, Java, SQL, LaTeX, HTML, CSS, Javascript, etc.

Technology Skills: Language Modeling, Knowledge Graph, Few-shot Learning.

Writing Skills: Writing blogs on CSDN and Zhihu.

Professional Service

Reviewer for AAAI, EMNLP, ACL, etc.