Hao Fei 费豪

☑ feish7419@163.com, hao.fei@whu.edu.cn

https://scofield7419.github.io/

https://github.com/scofield7419

https://dblp.uni-trier.de/pid/81/3569-1.html

https://scholar.google.com/citations?user=YGDX46AAAAAJ



I am a Ph.D. candidate majoring in natural language processing (NLP) at School of Cyber Science and Engineering, Wuhan University, China. My research interest lies in the theme of **structure-aware NLP**, i.e., integrating syntax/semantic structure into downstream NLP tasks. During my Ph.D. researching phase, I have paid the major efforts to the following three topics: 1) Semantics/Syntax Parsing, 2) Affective Computing, as well as 3) Information Extraction etc.

Education

2018.9—now **Wuhan University**, Wuhan, China.

Ph.D. candidate in Computer Science.

Supervisor: Prof. Donghong Ji.

Associate Advisors: Yafeng Ren, Yue Zhang, Meishan Zhang.

2016.9–2018.7 **Wuhan University**, Wuhan, China.

M.S. in Computer Science.

Supervisor: Prof. Donghong Ji.

2012.9–2016.7 **XiDian University**, Xi'an, China.

B.S. in Physics.

Publications (Selected)

► Semantics/Syntax Parsing

- Hao Fei, Shengqiong Wu, Yafeng Ren, Fei Li and Donghong Ji. Better Combine Them Together! Integrating Syntactic Constituency and Dependency Representations for Semantic Role Labeling. Findings of ACL. 2021.
- 2. **Hao Fei**, Meishan Zhang, Bobo Li, Donghong Ji. End-to-end Semantic Role Labeling with Neural Transition-based Model. Proceedings of **AAAI**. 2021.
- 3. **Hao Fei**, Fei Li, Bobo Li, Donghong Ji. Encoder-Decoder Based Unified Semantic Role Labeling with Label-Aware Syntax. Proceedings of **AAAI**. 2021.
- 4. **Hao Fei**, Shengqiong Wu, Yafeng Ren, Donghong Ji. Second-order Semantic Role Labeling with Global Structural Refinement. IEEE **TASLP**. 2021.
- 5. **Hao Fei**, Meishan Zhang, Donghong Ji. Cross-Lingual Semantic Role Labeling with High-Quality Translated Training Corpus. Proceedings of **ACL**. 2020.
- 6. Hao Fei, Meishan Zhang, Fei Li, Donghong Ji. Cross-lingual semantic role labeling with model

- transfer. IEEE TASLP. 2020.
- Hao Fei, Yafeng Ren, Donghong Ji. Retrofitting Structure-aware Transformer Language Model for End Tasks. Proceedings of EMNLP. 2020.
- 8. **Hao Fei**, Yafeng Ren, Donghong Ji. Mimic and Conquer: Heterogeneous Tree Structure Distillation for Syntactic NLP. Findings of **EMNLP**. 2020.
- 9. **Hao Fei**, Yafeng Ren, Donghong Ji. Improving Text Understanding via Deep Syntax-Semantics Communication. Findings of **EMNLP**. 2020.
- 10. **Hao Fei**, Yafeng Ren, Donghong Ji. High-order Refining for End-to-end Chinese Semantic Role Labeling. Proceedings of **AACL-IJCNLP**. 2020.

▶ Affective Computing

- Hao Fei, Yafeng Ren, Bobo Li, Shengqiong Wu, Donghong Ji. Latent Target-Opinion as Prior for Document-Level SentimentClassification: A Variational Approach from Fine-Grained Perspective. Proceedings of WWW. 2021.
- 2. Shengqiong Wu*, **Hao Fei***, Yafeng Ren, Donghong Ji, Jingye Li. Learn from Syntax: Improving Pair-wise Aspect and Opinion Terms Extraction with Rich Syntactic Knowledge. Proceedings of **IJCAI**. 2021. (* Equal contribution)
- 3. **Hao Fei**, Yue Zhang, Yafeng Ren, Donghong Ji. Latent Emotion Memory for Multi-Label Emotion Classification. Proceedings of **AAAI**. 2020.
- 4. Jingye Li*, **Hao Fei***, Donghong Ji. Modeling Local Contexts for Joint Dialogue Act Recognition and Sentiment Classification with Bi-channel Dynamic Convolutions. Proceedings of **COLING**. 2020. (* Equal contribution)
- 5. **Hao Fei**, Donghong Ji, Yue Zhang, Yafeng Ren. Topic-Enhanced Capsule Network for Multi-Label Emotion Classification. IEEE **TASLP**. 2020.
- 6. **Hao Fei**, Yafeng Ren, Chenliang Li, Meishan Zhang, and Donghong Ji. On the Robustness of Aspect-based Sentiment Analysis: Rethinking Model, Data and Training. ACM **TOIS**. (*Under Review*)
- 7. **Hao Fei**, Yafeng Ren, Yue Zhang and Donghong Ji. Non-Autoregressive Encoder-Decoder Neural Framework for End-to-End Aspect-Based Sentiment Triplet Extraction. IEEE **TNNLS**. (*Under Review*)
- 8. **Hao Fei**, Yafeng Ren, Donghong Ji. Transition-based End-to-end Emotion-Cause Pair Extraction with Implicit Discourse Knowledge. IEEE Transactions on Affective Computing (**TAFFC**). (*Under Review*)

►Information Extraction

- Hao Fei, Fei Li, Bobo Li, Yijiang Liu, Yafeng Ren, Donghong Ji. Rethinking Boundaries: End-To-End Recognition of Discontinuous Mentions with Pointer Networks. Proceedings of AAAI. 2021.
- 2. **Hao Fei**, Yue Zhang, Yafeng Ren, Donghong Ji. Optimizing Attention for Sequence Modeling via Reinforcement Learning. IEEE **TNNLS**. 2021.
- 3. **Hao Fei**, Yafeng Ren, Yue Zhang, Donghong Ji, Xiaohui Liang. Enriching Contextualized Language Model from Knowledge Graph for Biomedical Information Extraction. Briefngs in Bioinformatics. 2020.
- 4. **Hao Fei**, Yafeng Ren, Donghong Ji. Boundaries and edges rethinking: an end-to-end neural model for overlapping entity relation extraction. Information Processing & Management. 2020.

5. **Hao Fei**, Yafeng Ren, Donghong Ji. A tree-based neural network model for biomedical event trigger ³ detection. Information Sciences. 2019.

Professional Service

Conference PC ACL, ICLR, NeurIPS, AAAI, EMNLP, COLING, CCL, NLPCC, etc.

Iournal Reviewer IEEE TNNLS, IEEE TASLP, IEEE TAFFC, ACM TALLIP, Information Processing

& Management, Neurocomputing, Information Sciences, Knowledge-based Sys-

tem etc.

Organization ACL member, AAAI member, ACM member, China Computer Federation (CCF)

member, Chinese Information Processing Society of China (CHIP) member, Youth

Working Committee in CHIP.

Teaching Assistant C programming and algorithm (Autumn 2019), Natural language understanding (Au-

tumn 2020), Deep learning (Spring 2021) in Wuhan University.

Honor and Award

Influential figure award of Wuhan University. 2021

1st prize of Luoge scholarship for Ph.D. Fellowship.

1st prize of Extraordinary scholarship of academy.

1st prize of Excellent scholarship of academy for Ph.D. Fellowship.

2020 National scholarship for graduate students.

Pacesetter of outstanding graduate student award.

Nomination award of academic stars of Wuhan University.

1st prize of academic scholarship of Wuhan University.

1st prize of Jing-Dong Dialogue Challenge (JDDC). 2019

1st prize of Text matching CHIP Challenge. 2018

2st prize of academic scholarship of Wuhan University. 2016-19

2nd prize of National Mathematical Modeling Competition for Postgraduates. 2017

Skills

Languages English (Freely expressing), Mandarin Chinese, Cantonese.

Coding Python, Java, C/C++, JS, PHP, HTML/CSS, STM32, Shell, LaTeX, Markdown ...

Pytorch, TensorFlow, Keras, Theano, Dynet, Tensor2tensor, Mxnet, OpenAI, FastAI, Deep-Learning AllenNLP, Paddle paddle, Chainer ...

Open Sources 4

 $606 \bigstar \mid \Box$ A highly modular framework for sequential labeling tasks.

250 ★ | ♠ A summarization of MUST-READ deep learning papers for beginners.

71 ★ | ♠ A Hierarchical BiLSTM-CNN for sentiment analysis.

61 ★ | ♠ Hands-on tutorials on various popular Deep Learning frameworks.

Patent

A Recursive Conditional Random Field Method for Event Recognition. Donghong Ji, **Hao Fei**, Shengqiong Wu. (Chinese Patent, CN202110101327)

- A Deep Joint Neural Model for Element Extraction. Donghong Ji, Kang Xu, **Hao Fei**. (Chinese Patent, CN202110101370)
- A Reinforcement Learning Based Scheduling Algorithm for Public Opinion Devices. **Hao Fei**, Kaizhi Wu. (Chinese Patent, CN201910204236.X)