# JIE HE

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### **EDUCATION**

M.S., Dept. of Computer Science.

Sept. 2019 - Jan. 2022

Tianjin University, Advisor: Prof. Deyi Xiong.

Major GPA: 86.15/100

B.S., Dept. of Software Engineering.

Sept. 2015 - July. 2019

Shandong University, Major GPA: 85.3/100

### RESEARCH INTERESTS

My primary research interests are in building Language Technology for All, through natural language understanding and generation. Towards this goal, I have an interest in commonsense and interpretability. Commonsense involves both the usage of commonsense datasets [1] and method incorporating knowledge to NLP models [3]. Interpretability involves the diagnose and analyze the errors of existing models [2] and give the model the ability to explain its prediction. I am also interested in discourse phenomena [4,5].

## **PAPERS**

[1] The Box is in the Pen: Evaluating Commonsense Reasoning in Neural Machine Translation Jie He\*, Tao Wang\*, Deyi Xiong, Qun Liu Accepted by Proc. of EMNLP 2020 Findings. The public test suite can be found at: [Github]

[2] TGError: An Error-Annotated Dataset and Benchmark Tasks for Text Generation from Pretrained Language Models

**Jie He\***, Bo Peng\*, Yi Liao, Qun Liu, Deyi Xiong Accepted by ACL2021.

- [3] Meta-RTL: Reinforcement-Based Meta-Transfer Learning for Low-ResourceCommonsense Reasoning **Jie He**, Yu Fu, Yifang Yang, Qun Liu, Deyi Xiong Submitted to IJCAI 2022.
- [4] Hierarchy-aware contrastive learning in implicit relation recognition Wanqiu Long, **Jie He\***, Bonnie Webber Submitted to ARR January 2022.
- [5] Fine-Grained Evaluation for Implicit Discourse Relation Recognition by Using Pre-trained Language Models Wanqiu Long, **Jie He\***, Deyi Xiong Under revision.

[6] Evaluate Discourse Cohesion in Pre-trained Language Models Jie He, Wanqiu Long, Deyi Xiong Under revision.

## INTERNSHIP/TRAININGS

1. Research intern in SDU IR LAB

2018.1-2018.6

Advisor: Zhumin Chen

Constructing Sports News from live text commentary. We designed a deep learning model to fully automatically construct sports news from Live Text.

2. Collaboration with Huawei Noah's Ark Lab.

2020.9-now

Advisor: Qun Liu.

Chinese text error correction. We investigated the error produced by GPT2's text generation.

- Developed a set of annotation tools for annotation.
- Built a comprehensive error classification system for the error analysis.

Python, C/C++, Java, Matlab, Latex

Chinese (native), English (fluent)

• The first prize scholarship in Tianjin University (10%)

- Submitted a paper to ACL2021.
- We are considering exploring more generation settings and expanding the size of datasets.
- 3. Reseach intern in Copenhagen nlp

2021.6-now

Advisor: Daniel Hershcovich

Systematic analysis of the application of graph neural networks in neural machine translation systems. We use GCN to encode UD, AMR and other semantic/syntax information, and observe whether the introduction of this information will bring performance improvements in some challenging machine translation test sets.

4. Reseach intern in UCL

2021.6-now

2021

Advisor: Pasquale Minervini

Systematic research on the application of prompt learning in natural language explanation tasks.

# **SKILLS**

**Programming** 

Languages

AWARDS	
• The third prize scholarship in Shandong University	2016
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• The first prize scholarship in Tianjin University (10%)	2020