

Yihuai Hong

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Education

Bachelor of Engineering, Computer Science

South China University of Technology(SCUT), Guangdong, China

Sept 2020 – Present

Expected Graduation: June 2024

GPA: 3.55/4.00 (Top 10)

Relevant Courses: Algorithm design and analysis(94), Probability & Mathematical Statistics(94), Discrete Mathematics(95), Data Structure(92), Database System(90), Java Programming(93), Advanced Language Program Design(97), Advanced Topics of Information Technology(98)

Research Experience

Research Intern, Supervisor: Dr. Ziqian Zeng

July 2021 - Present

School of Computer Science and Engineering, SCUT

- Conduct the NLP research on Pretrained Language Model and Information Extraction
- Perform the experiments and analysis toward top-tier NLP conferences

Projects

Dynamic Early-exit based on Sample Weight Optimization. (Aiming for EMNLP 2023) Dec 2022 - Present

- Dynamic Early-exit, allowing samples to exit earlier without passing through the entire model, is an effective method to speed up inference of PLM. The challenges lie in enhancing performance and effectiveness simultaneously.
- Design the method to explore the memory distribution(whether the sample has been remembered) and utilize this distribution to conduct the Early-exit, which can maintain the model performance and speed up the inference **1.5** times.

Event Extraction via Prompt Learning. (Under progress)

Aug 2022 – Present

- In Trigger Word Detection, prompt learning can't work well as the traditional finetuned pre-trained model. How to incorporate the text feature about trigger words into prompt representation is the current difficulty.
- We employ the attention mechanism to achieve that and improve the performance by nearly 2% compared with the Pattern-Exploiting Training model.

Few Shot learning Relation Extraction based on Prompt Free.

May 2022 – Aug 2022

- In relation extraction task, we leverage the prompt-free method utilizing the adapter layer to learn the task specific prompt feature, following the adapter-finetune idea and setting.
- Enhance the model performance by around 1-2% compared with the prompt-free model (Meta AI in ACL2022).

Honors and Awards

National Scholarship

Oct 2022

Kaggle **Silver** medal (Top 5%)

Jul 2021

- CommonLit Readability Prize: Rate the complexity of literary passages for grades 3-12 classroom use Kaggle

Kaggle Bronze medal (Top 6%)

Mar 2022

- Evaluating Student Writing: Analyze argumentative writing elements from students grades 6-12

SCUT First Prize Scholarship

Oct 2021

SKILLS

Programming Languages: Python, C++, C, Matlab

Framework & Tools: PyTorch, TensorFlow, Django

Languages: English, Chinese (Native)