

XIAOHAN XU, 许肖汉

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BIO

I am a second-year graduate student at Information Institute of Engineering (IIE), UCAS, mentored by Prof. [Hongbo Xu](#). I am self-motivated and actively dedicated to my studies. Furthermore, I possess good planning skills and have the ability to set clear goals. My research interests focus on language models and knowledge graphs.

EDUCATION

UCAS, Information Institute of Engineering, <i>M.S</i> , GPA: 3.84/4	2021.9 - 2024.6 (expected)
Illinois Institute of Technology, Big Data, <i>Summer Research</i>	2019.7 - 2019.9
University of Alberta, <i>School-sponsored Exchange Program</i>	2018.7 - 2018.8
Beijing Institute of Technology, Automation, <i>B.E.</i> , GPA: 89.1/100 ;	2017.9 - 2021.6

AWARDS & HONORS

- National Scholarship, National Encouragement Scholarship, BIT Excellent Student Model

SKILLS

- **Tools:** Python, Pytorch, Shell, Transformers, Deepspeed, \LaTeX , Git, Linux, GDB
- **English:** TOEFL (90), GRE (324)
- **Math:** Higher Math. (96), Linear Algebra (94)

INTERNSHIPS

Baidu Inc. | XiaoDu Cloud Research Intern 2022.11-now

- **Intelligent Exam Solving Model:** Unify and solve K-12 multi-subject & multi-type exams.
 - **Instruct Tuning:** 1) Construct chinese instruct data; 2) Instruct-tuning based on exam and instruct data.
 - **Knowledge Injection:** 1) Probe LM scarce knowledge; 2) Inject corresponding knowledge by post-training.

BAAI | Recognition & Data Group Research Intern 2022.4-2022.10

- Supervised by Dr. [Yequan Wang](#)
- **Emotional Support Conversation (ESC):** Design a dialogue system for emotional support.
 - **Prior Knowledge Enhance:** Mine rich prior knowledge from relevant conversations as guidance for current response and strategy.
 - **Diversity&Denoising:** Introduce latent variables to improve diversity and denoise exemplars. Get SOTA.
- **Pretrained LM & KG:** Explore to pre-train language model enhanced with knowledge graphs by in-batch contrastive learning and multi-task learning on link prediction and MLM.

RESEARCH

Inductive KG Link Prediction **IJCAI 2022** Long Presentation [GitHub](#) 2021.7-2022.1

- **Intro.:** Work on predicting missing links between unseen nodes by their subgraph.
- **Model:** Model neighboring relations of unseen nodes w.r.t. node feature and path feature, and model global representation with mutual information maximization between local and global views. Get SOTA.

PUBLICATION

- **Xiaohan Xu**, Peng Zhang, Yongquan He, Chengpeng Chao, Chaoyang Yan. *Subgraph Neighboring Relations Infomax for Inductive Link Prediction on Knowledge Graphs*. **Long presentation (25%) at IJCAI 2022**
- **Xiaohan Xu**, Xuying Meng, Yequan Wang. *PoKE: Prior Knowledge Enhanced Emotional Support Conversation with Latent Variable*. **Preprint 2023**

SERVICE

- **Volunteer Teaching:** I volunteered at a local school for children of migrant workers once a week during my 1st and 2nd years. In my 2nd year, I also went to teach in a rural area in Bozhou, Anhui.