

Fangxu Yu

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EDUCATION

Xidian University

Bachelor of Computer Science

Xi'an, China

June 2022

Nanjing University

Master of Computer Science

Nanjing, China

Expected June 2025

EXPERIENCE

Research Intern

National Laboratory of Radar Signal Processing

June 2020 – June 2022

Xidian University

- Probabilistic topic model and natural language processing, advised by Prof. Bo Chen
This experience gives me an introduction to natural language processing and topic models, especially makes me familiar with the series of works by Prof. Bo Chen. Further, I help with some coding work for radar high-resolution range profile.

Research Intern

Key Laboratory of Intelligent Perception and Image Understanding of Ministry of Education

January 2021 – April 2021

Xidian University

- Video Super Resolution, advised by Prof. Fanhua Shang
I serve as a core member to build models to improve video super-resolution. Our method simultaneously conducts frame interpolation and super-resolution.

Research Intern

Remote

December 2021 – June 2023

Stanford University

- Explainability for graph neural networks, advised by Shirley Wu
We primarily focus on how to generate counterfactual explanations for GNNs. We develop a learning framework and a controlled generative model for generating graph counterfactual explanations.

Research

State Key Laboratory for Novel Software Technology at Nanjing University

September 2022 – May 2023

Nanjing University

- Emotion recognition and Dialogue modeling, advised by Dr. Zhen Wu and Prof. Xinyu Dai
In this work, we aim to recognize emotion for each utterance in a multi-party dialogue. We develop a contrastive learning framework to better distinguish similar emotions, which achieves state-of-the-art performance.

Research Intern

Department of CSE

September 2023 – Present

University of California, San Diego

- Constrained and controllable text generation, advised by Lianhui Qin
We focus on how to improve the text quality and efficiency generated by the energy-based model.

PUBLICATIONS

- **Fangxu Yu**, Lai Jiang, Haoqiang Kang, Shibo Hao, Lianhui Qin, "Flow of Reasoning: Efficient Training of LLM Policy with Divergent Thinking", **NeurIPS 2024, Under Review**
- Xingang Guo*, **Fangxu Yu***, Huan Zhang, Lianhui Qin, Bin Hu, "COLD-Attack: Jailbreaking LLMs with Stealthiness and Controllability", in **ICML 2024**
- **Fangxu Yu**, Junjie Guo, Zhen Wu, Xinyu Dai, "MSGF: A Multi-Semantic Graph Fusion Network for Causal Emotion Entailment", in **Under Review LREC-COLING 2024**
- **Fangxu Yu**, Junjie Guo, Zhen Wu, Xinyu Dai. "Emotion-Anchored Contrastive Learning Framework for Emotion Recognition in Conversation", in **Findings of NAACL 2024**
- Wenchao Chen, Bo Chen, Yicheng Liu, Xiaojun Peng, Haoyang Fan, **Fangxu Yu** and Hongwei Liu. "Bidirectional Recurrent Gamma Belief Network for HRRP Target Recognition", in **Signal Processing**
- Sanghyun Son, Suyoung Lee, Seungjun Nah, Radu Timofte, Kyoung Mu Lee etc. "NTIRE 2021 challenge on video super-resolution", in **NTIRE 2021 Challenge on Video Super-Resolution**

PROJECTS

- **Fangxu Yu**, Junjie Guo, Yuan Gao, Minglei Yuan, Zhen Wu, Xinyu Dai, "An ensemble-based post-hoc explanation for recommendation systems", **Patent Under Review**

TECHNICAL SKILLS

Programming Skills: C, Python, Pytorch, Pytorch Geometric
Language: CET4: 588, CET6:553, TOEFL: 97

TEACHING ASSISTANT

Intro to AI programming Undergraduate Course, Nanjing University Spring, 2023