JINYUAN LI (李金源)

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EDUCATION

MSc Tianjin University Sept 2022 ▸ Jan 2025 (Expected)

Major in Computer Technology

Advisor: Prof. Gang Pan

Research Topics: Multimodal Learning / Natural Language Processing / Computer Vision

B.S. Taiyuan University of Technology (211 Project) Sept 2018 ▸ Jul 2022

Major in Applied Mathematics (First Year) & Information and Computing Science (Subsequent Years)

Major GPA: 93.6/100; GPA: 90.5/100

Courses: Advanced Algebra (100), Numerical Analysis (98), Probability Theory (96), Mathematical Analysis (93), Fuzzy Mathematics (93), Operating System (97), High Performance Computing (96), Data Structures (92), etc.

RESEARCH EXPERIENCE

Publications

1. LLMs as Bridges: Reformulating Grounded Multimodal Named Entity Recognition.
   Findings of the Association for Computational Linguistics: **ACL 2024**
   Jinyuan Li, Han Li, Di Sun, Jiahao Wang, Wenkun Zhang, Zan Wang, Gang Pan
   Code: https://github.com/JinYuanLi0012/RiVEG
   - Reformulating GMNER task at the macro level and unifying Visual Grounding and Entity Grounding.
   - All 14 variants of RiVEG achieve new SoTA performance on the Twitter-GMNER dataset.
2. Prompting ChatGPT in MNER: Enhanced Multimodal Named Entity Recognition with Auxiliary Refined Knowledge. Findings of the Association for Computational Linguistics: **EMNLP 2023**
   Jinyuan Li, Han Li, Zhuo Pan, Di Sun, Jiahao Wang, Wenkun Zhang, Gang Pan
   Code: https://github.com/JinYuanLi0012/PGIM
   - Activating the potential of large language models in Multimodal Named Entity Recognition.
   - SoTA results on Twitter-2015 and Twitter-2017 datasets and stronger generalization capability.

Preprints

1. Advancing Grounded Multimodal Named Entity Recognition via LLM-Based Reformulation and Box-Based Segmentation. Under review by **IEEE Transactions on Multimedia**
   Jinyuan Li, Ziyan Li, Han Li, Jianfei Yu, Rui Xia, Di Sun, Gang Pan
   Code: https://github.com/JinYuanLi0012/RiVEG
   - Proposing new SMNER task and constructing corresponding Twitter-SMNER dataset.
   - Demonstrating the feasibility of using box prompt-based SAM to empower any GMNER model with the ability to accomplish the SMNER task.
2. AFAN: An Attention-Driven Forgery Adversarial Network for Blind Image Inpainting.
   Under review by **IEEE Transactions on Multimedia**
   Jiahao Wang, **Jinyuan Li**, Gang Pan, Di Sun, Jiawan Zhang
   - Contributing to dataset construction, article writing and revision as a collaborator.
3. DSTFuse: Enhancing Deblurring via Style Transfer for Visible and Infrared Image Fusion.
   Under review by **WACV 2025**
   Gang Pan, Yonglu Liu, **Jinyuan Li**, Zhenjun Han, Jiahao Wang, Di Sun
   - Guiding a junior student to complete a full-process research.

Work Experience

Research Intern

Baidu OCR Team, Beijing Apr 2024 ▸ Jun 2024

Participate in research and development of PaddleOCR (With 42K+ stars on GitHub):

- Exploring the potential of multimodal vision-language models for visual document understanding.

Awards and Honors

First-class Academic Scholarship of Tianjin University **(Ranked #1 in CS Major)** 2024

Excellent Students of Tianjin University **(Ranked #1 in CS Major)** 2024

Second-class Academic Scholarship of Tianjin University 2022 & 2023

Excellent Students of Taiyuan University of Technology **(Top 2%, 3/128)** 2021

Academic Excellence Scholarship of Taiyuan University of Technology 2020 & 2021

Provincial Second Prize in the National College Student Mathematical Modeling Competition 2020

Excellent Academic Progress Student of Taiyuan University of Technology 2020

Outstanding Student Cadre of Taiyuan University of Technology 2019

Service

Reviewer: ACL 2024, EMNLP 2024, NAACL 2024, ACL ARR 2024, ACM MM 2024, WACV 2025, PR, TMM

Teaching Assistant: Advanced Computer Vision (Postgraduate), Tianjin University, Fall 2023