# JINXIANG XIE

### **EDUCATION**

# **Beijing Jiaotong University**

2021.09 ~ 2025.06

• Bachelor of Science - Information and Computing Science

### PUBLICATIONS

DSGram: Dynamic Weighting Sub-Metrics for Grammatical Error Correction in the Era of Large Language Models.

- In The 39th Annual AAAI Conference on Artificial Intelligence (AAAI 2025)
- Jinxiang Xie, Yilin Li, Xunjian Yin, Xiaojun Wan.

### **▲** Internship Experience

### Research Intern, Microsoft

2024.08 ~ 2025.02

Mentor: Justin Ding

Beijing, China

- Designed innovative metrics using Kendall τ and LLMs to evaluate Excel Copilot's stability, achieving up to a 21.5% improvement in stability through Algorithmic Prompting (AP) and Thinking before Speaking (TbS).
- Independently developed an **Agent workflow generation framework**, successfully deployed for a Fortune Global 500 client, and authored a technical report on Copilot's text analysis capabilities.
- Designed a new **prompt engineering paradigm**, improving LLM output quality by **13**% while accelerating response speed by **56**% through intermediate reasoning paths and a compact JSON Schema.

## Research Intern, Peking University

2023.11 ~ 2024.07

Supervisor: Xiaojun Wan

Beijing, China

- Pioneered the DSGram dynamic context-aware evaluation framework, addressing redundancy issues among submetrics and reducing Pearson correlation relativity by 25.3×.
- Constructed two new datasets: DSGram-Eval and DSGram-LLMs. Fine-tuned a lightweight, cost-efficient model on these datasets, improving LLaMA's performance on the task by **24.84**%.
- Proposed a dynamic weighting generation method, integrating LLMs with the Analytic Hierarchy Process (AHP) to generate customized weights, achieving a **92.7**% agreement with human evaluation on public SEEDA datasets, establishing a new state-of-the-art (**SOTA**). The work was published at AAAI as first author.

# **Summer Workshop Student, National University of Singapore**

2023.05 ~ 2023.07

Mentor: Colin Tan

Singapore

- Annotated a dataset, trained a YOLO-v7 model for recognizing cat breeds and integrated the model into a robot.
- Designed and implemented a robot capable of autonomous navigation and feeding using ArUco code recognition.

### Research Training Program, Beijing Jiaotong University

2023.04 ~ 2024.04

Explored prompt engineering techniques on lightweight LLMs. Fine-tuned LLMs tailored to specific industries.

### **SKILLS**

- **Programming:** Python: C++: ..., LAT<sub>E</sub>X:
- English Proficiency: IELTS band 7, CET-6 score of 601
- Mathematics: Advanced Algebra, Probability Theory, Optimization Theory and Algorithms
- AI: Large Language Models (Prompt Engineering, RAG, Fine-Tuning), Natural Language Processing
- Data Science: Pandas, Numpy, Matplotlib, scikit-learn

### Awards

- Honorable Mention of 2024 Mathematical Contest In Modeling
- First Prize of 2023 BJTU-Hollysys Science and Technology Innovation Cup Competition
- Second Prize of 2024 National College Student Innovation and Entrepreneurship Competition in Beijing

#### **\$** EXTRACURRICULAR ACTIVITIES

### Microsoft Learn Student Ambassador, Microsoft

2024.01 ~ 2025.02

Launched an AI Project to simplify the invoicing process using Retrieval Augmented Generation (RAG), sponsored by Microsoft for Startup Hub with more than \$5000.

### **Executive Chairman of Student Chapter, Beijing Jiaotong University**

2023.05 ~ 2024.06

The summer social practice team lead by me was awarded by the Beijing Municipal Government.