# Jingdi Lei

### RESEARCH INTEREST

Vision-Language Model, Large Language Model Reasoning, Reinforcement Learning

### **EDUCATION**

**Beijing Institute of Technology** 

Beijing, CHN

B.E. in Electronic Engineering (Elite Class)

August 2021 - June 2025

- GPA: 3.81/4.0 (Rank: 2/21)

Nanyang Technological University

SGP

Ph.D. in school of Electrical and Electronic Engineering

August 2025 - June 2029 (expected)

Advisor: Soujanya Poria

### **AWARDS & HONORS**

National Scholarship

**Dongfeng Scholarship** 

Outstanding students, Beijing Institute of Technology

MCM Honorable mention

Second Prize in the National Mathematical Modeling Competition in Beijing

### **PUBLICATIONS**

### Critic-V: VLM Critics Help Catch VLM Errors in Multimodal Reasoning

Di Zhang\*, **Jingdi Lei\***, Junxian Li\*, Xunzhi Wang\*, Yujie Liu, Zonglin Yang, Jiatong Li, Weida Wang, Suorong Yang, Jianbo Wu, Peng Ye, Wanli Ouyang, Dongzhan Zhou

IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2025

# LLaMA-Berry: Pairwise Optimization for Olympiad-level Mathematical Reasoning via O1-like Monte Carlo Tree Search

Di Zhang\*, Jianbo Wu\*, **Jingdi Lei\***, Tong Che\*, Jiatong Li, Tong Xie, Xiaoshui Huang, Shufei Zhang, Marco Pavone, Yuqiang Li, Wanli Ouyang, Dongzhan Zhou

The North American Chapter of the Association for Computational Linguistics (NAACL), 2025.

#### ChemVLM: Exploring the Power of Multimodal Large Language Models in Chemistry Area

Junxian Li\*, Di Zhang\*, Xunzhi Wang\*, Zeying Hao\*, **Jingdi Lei**, Qian Tan, Cai Zhou, Wei Liu, Yaotian Yang, Xinrui Xiong, Weiyun Wang, Zhe Chen, Wenhai Wang, Wei Li, Shufei Zhang, Mao Su, Wanli Ouyang, Yuqiang Li, Dongzhan Zhou

Association for the Advancement of Artificial Intelligence (AAAI), 2025.

## In-Vehicle Acoustic Event Detection Model Based on Deep Neural Network

Jingdi Lei, Yilin Cheng, Jing Wang, Liang Xu, Jianqian Zhang, Zhiyu Li

in 2023 International Conference on Cyber-Physical Social Intelligence (ICCSI), 2023.

### **SELECTED COURSES**

Electronic communication systems (100), Signals and Systems (98), Data Communications and Networking (97), Principles of Digital Communications (97), Probability Theory and Mathematical Statistics (93), Algorithms and Data Structures (93), Digital Image Processing (93), Computer Principles and Applications (93), Semiconductor Physics and Device Modeling (96).

# **SKILLS**

Programming Languages

Matlab, LaTex, Python, Pytorch, C, C++ Chinese, English (CET-6 566)