Qi Deng

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Address: No.2006, Xiyuan Ave, West Hi-Tech Zone, Chengdu, China

Education

University of Electronic Science and Technology of China Chengdu, China

Master in Computer Technology. Advised by Prof. Lijun Wu Sep. 2022 – Jun. 2025

Chengdu University of Information Technology Chengdu, China

Bachelor in Software Engineering. Sep. 2018 – Jun. 2022

Research Interests

- Reinforcement Learning: Exploring methods for intelligent agents to learn optimal policies through trial-and-error interactions with the environment, guided by explicit reward mechanisms or implicit human feedback.
- Multimodal Machine Learning: Investigating approaches to integrate and leverage information from different modalities (e.g., vision, text, audio) to enhance the performance and generalization capabilities of AI models.
- Game Theory: Modeling strategic interactions among a large number of rational agents where their behaviors influence each other, and exploring equilibrium solutions in various game settings.
- LLM-based Agents: Employing large language models as the core of agents, enhancing their perception and action capabilities via multimodal inputs and tool utilization, seen as promising steps toward AGI.

Publications

[1] **Qi Deng**, Lijun Wu, Kaile Su, Wei Wu, Zhiyuan Li and Weiwei Duan. Hierarchical Fusion Framework for Multimodal Dialogue Response Generation. *2024 International Joint Conference on Neural Networks (IJCNN)*, Yokohama, Japan, 2024, pp. 1-8, doi: 10.1109/IJCNN60899.2024.10650044. (Oral Presentation)

[2] Yulin Jing, Lijun Wu, Zhiyuan Li, **Qi Deng**. Boundary Black-box Adversarial Example Generation Algorithm on Video Recognition Models. *Computer Science*, 2025.

[3] **Qi Deng**, Lijun Wu, Zhiyuan Li, Kaile Su, Wei Wu, and Weiwei Duan. Multi-Agent Neighborhood Coordinated and Holistic Optimized Actor-Critic Framework for Adaptive Traffic Signal Control. *Applied Intelligence*. (Under Review)

[4] Weiwei Duan, Lijun Wu, **Qi Deng**, Zhiyuan Li. Adaptive Graph Attention Networks with Interactive Learning for Attributed Graph Clustering. *Engineering Applications of Artificial Intelligence*. (Under Review)

Experience

- Serve as teaching assistant for the graduate course "Formal Method". Sep. 2023 - Jan. 2024
- Invited to serve as reviewer for (i) IJCNN 2024 (ii) Engineering Applications of Artificial Intelligence (iii) IJCNN 2025. Feb. 2024 & May. 2024 & Feb. 2025
- During my internship at Chengdu KeHongda Technology Co., Ltd., I contributed to constructing an intelligent target tracking system and was primarily responsible for researching and reproducing the state-of-the-art occluded face recognition algorithms. Mar. 2024 - Jul. 2024
- Research Group Project titled “Artificial Intelligence Large Model for Intelligent Legislation,” which focuses on developing an AI system specialized in legislative analysis. The system is designed to process complex legal texts and identify contradictions between superior laws and peer regulations. My core task involves designing automated conflict detection mechanisms that highlight legislative inconsistencies and generate actionable amendment suggestions. The key implementations integrate domain-adapted model distillation for legislative knowledge transfer, a fine-grained Mixture of Experts (MoE) framework that decomposes the legislative analysis pipeline into specialized sub-tasks, Retrieval Augmented Generation (RAG) based prompt engineering, and Reinforcement Learning from Human Feedback (RLHF) that continuously optimizes conflict detection through iterative expert evaluations. Sep. 2024 - Present

Honors and Awards

Academic Scholarship of Chengdu University of Information Technology	4 times in 2018-2022
Youth Role Model of Chengdu University of Information Technology (top 0.5%)	May. 2021
Merit Student of Chengdu University of Information Technology	Dec. 2021
Outstanding Graduate of Chengdu University of Information Technology	Dec. 2021
Academic Scholarship of University of Electronic Science and Technology of China	3 times in 2022-2025
The Bronze Medal in China Collegiate Algorithm Design & Programming Challenge Contest	Jun. 2023
The 2^{nd} Prize in CCF CAT National Algorithm Elite Competition	Mar. 2024
Excellent Postgraduate Student of Electronic Science and Technology of China	Nov. 2024
Outstanding Graduate of University of Electronic Science and Technology of China	Nov. 2024

Skills

Proficient in Python and PyTorch on Linux system for AI programming and GPU-accelerated computing.

Languages: Chinese (native), English (fluent, IELTS 6.5)