Personal Information

Name	Zihan Ji (冀子晗)	**Sex**	Male
Birth Date	2001-04	**Foreign Language**	CET-6
Native Place	Zhengzhou, Henan	**Research Field**	Transfer Learning, Affective Computing, Multimodal Representation Learning
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Education

2019.09 – 2023.06	Wuhan University of Technology (WHUT)	Artificial Intelligence	Mentor: Xing Liu, Anna Zhu
2023.09 – 2026.06 (Expected)	South China University of Technology (SCUT)	Information and Communication Engineering	Mentor: Ye Liu, Xuetao Tian

Selected Project Experiences

■ **Video Deception Detection Based on Hierarchical Optimal Transport**（2023.11 – 2024.07）

Due to the spontaneous and highly covert nature of lying behavior, the current ***high-quality annotated video deception detection dataset is relatively small***, which makes it difficult for detection models to ***generalize effective knowledge to the testing set***. Inspired by psychological theories, we _transfer relevant knowledge quantitatively from external large-scale facial expression recognition datasets_ to deception samples through _hierarchical optimal transport_, enhancing the feature expression and generalization abilities of deception samples.

■ **OCR-Aware Unbiased Scene Graph Generation（SGG）**（2023.01 – 2023.08）

The existing SGG methods have ***limited visual understanding*** due to ***ignoring scene text*** information. This study constructs a _SGG dataset with OCR annotation_, incorporates scene text as the object into the SGG model, and proposes a two-stage optimization framework: firstly, using _cross attention mechanism_ to enhance visual representation _regions strongly correlated with labels_, alleviating background interference; Secondly, by using _counterfactual inference and total indirect effect logic bias learning_, the problem of _long tail distribution_ of relationship labels is solved, effectively improving the performance of scene graph generation.

■ **Flexible Job Shop Scheduling Based on Edge Computing and Reinforcement Learning**（2022.01 – 2022.04）

In response to the shortcomings of ***algorithm***, ***data fusion***, and ***privacy protection*** in cloud edge collaborative workshop scheduling, the project constructs an intelligent collaborative computing system: a GPU accelerated genetic algorithm integrated with BP neural network is designed in the cloud to achieve efficient cloud edge task decoupling and splitting; _The edge adopts GNN-Reinforcement Learning fused model to enhance the dynamic adaptability of tasks._ Implement data privacy protection and cross domain integration through a _federated learning_ framework, and build a complete cloud edge intelligent collaborative scheduling solution.

Academic Achievements

[3] Ye Liu*, **Zihan Ji***, Xuetao Tian✉. (#Multimodal Representation Learning). *ICCV 2025 Submission (CCF-A, Under Review)*.

[2] **Zihan Ji**, Xuetao Tian, Ye Liu✉. AFFAKT: A Hierarchical Optimal Transport Based Method for Affective Facial Knowledge Transfer in Video Deception Detection. *AAAI 2025 (CCF-A, Oral)*.

[1] Xinyu Zhou*, **Zihan Ji***, Anna Zhu✉. OCR-Aware Scene Graph Generation via Multi-modal Object Representation Enhancement and Logical Bias Learning. *PRCV 2024 (CCF-C)*.

Selected Honors

Merit Student, The Second Prize Scholarship from School		2020.11、2021.11、2022.11
Excellent Student Cadre		2023.06
Outstanding Graduates		2023.06
中国大学生服务外包创新创业大赛	National Third Prize	2022.08
中国大学生计算机设计大赛	Provincial First Prize	2022.06
中国高校计算机大赛——大数据挑战赛	National Third Prize	2024.08