Luo Xuewen

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EDUCATIONAL BACKGROUND

Monash University (QS:42, US News:37, THE:44)
Master ofArtificial Intelligence July. 2023 – July. 2025

- **GPA** *81.5 (High Distinction=80) 3.5/4.0*
- **Dissertation:** *Computer Architecture Networks, Machine Learning, Deep learning, Introduction to Database,IT Research Methods, Modeling Discrete Optimisation Problems*

Yunnan University (ARWU:401, Double first-class University)
Bachelor ofLogistic Management Sep. 2018 – June. 2022

- **GPA** *3.18/4.0* (Top 20% ofmajors)
- **Dissertation:** *Advanced Mathematics, Fundamentals of Programming Design, Application of Lean Transformation Information technology, Fundamentals ofComputer, Logistics System Simulation*

RESEARCH INTEREST

- **Autonomous Driving (eg. Knowledge-driven Autonomous Driving, Path Planning)**
- **Urban Intelligent Transport (eg. Vehicle-Road Coordination)**
- **Application of LLMs & MLLMs (eg. HCI)**

PUBLICATIONS

- F. Ding, **X. Luo**, J. Y. Loo*, Z. Zhao, Z. Tao.(2024). Energy-efficient Hybrid Model Predictive Planner for Autonomous Driving, SMC 2024.
- J. Q. Loh, **X. Luo,** F. Ding, J. Y. Loo*, H. H. Tew, Z. Y. Ding, C. P. Tan. (2024). Cross-Domain Transfer Learning using Attention Latent Features for Multi-Agent Trajectory Prediction, SMC 2024.
- **X. Luo**, F. Ding, Y. Song, X. Zhang, & J. Loo.(2024). PKRD-CoT: A Unified Chain-of-thought Prompting for Multi-Modal Large Language Models in Autonomous Driving, ICONIP 2024.
- **X. Luo**, F. Ding, R. Panda, R. Chen, & J. Loo. (2024). "What's Happening"- A Human-centered Multimodal Interpreter Explaining the Actions of Autonomous Vehicles, WACV Workshop (presentation).
- **X. Luo,** F. Ding, F. Yang, Y. Zhou, J. Loo, H. H. Tew, & C. Liu. (2024). SenseRAG: Constructing Environmental Knowledge Bases with Proactive Querying for LLM-Based Autonomous Driving, WACV Workshop (presentation).
- S. You**, X. Luo,** X. Liang, J. Yu, C. Zheng, J. Gong. (2025). A Comprehensive LLM-powered Framework for Driving Intelligence Evaluation, ICRA 2025

RESEARCH EXPERIENCE

Research on End to End Autonomous Driving Monash University
Research Intern(Supervisor:Junnyong Loo)

Oct. 2023 - Present

. Literature Review: Conducted comprehensive literature review to understand autonomous driving, deep learning, and computer vision.

. Model Replication: Reproduced BEVFormer and BEVFusion models, performing simulations on MATLAB platform and practicing coding with PyTorch.

.Research Output:

1.Energy-efficient Hybrid Model Predictive Planner for Autonomous Driving, SMC 2024.

2.Cross-Domain Transfer Learning using Attention Latent Features for Multi-Agent Trajectory Prediction, SMC 2024.

Research on Smart Transportation Systems for Intersection Safety University of Utah
Research Intern(Supervisor: Chenxi Liu)

July. 2024 - Oct. 2024

. Computer Vision: Trained YOLO models for object detection, created and curated datasets for training and validation, and implemented object tracking using StrongSORT to enhance real-time tracking accuracy.

. Collision Prediction: Developed predictive models for intersection collisions, utilizing historical data and real-time traffic information to identify potential collision scenarios and improve intersection safety.

. Expected Output:

Paper: In preparation for submission.

Research on Driving Behavior Evaluation Tsinghua University
Research Intern(Supervisor: Jiangtao Gong)

June. 2024 - Oct. 2024

. Data Processing: Processed predictive driving behavior data, extracted nodes and relationships, and created knowledge graphs for analysis.

. Behavior Assessment: Used large language model RAG-KG to evaluate driving behavior, leveraging knowledge graphs for comprehensive assessment.

. Expected Output:
Paper: In preparation for submission (ICRA 2025).

WORK & INTERNSHIP EXPERIENCE

CITIC Securities Company Limited China

Management Trainee

July. 2022 - July. 2023

. Responsible for customer data analysis and customer demand portrait

. Participate in business development of margin financing and private equity institutions

Li Auto (Beijing) China China

LLM Algorithm Intern

Dec. 2024 – Mar. 2025

. Synthesized Chain-of-Thought (CoT) text data to enhance large model reasoning capabilities

. Investigated effective strategies for Supervised Fine-tuning (SFT), such as multi-agent model integration

. Conducted fine-tuning experiments, analyzed results, and identified performance improvements

SKILLS

Languages: Native in Chinese, Proficient in English (PTE 60)

Computer: Python, SQL database, Pytorch, Linux

HONORS & AWARDS

Provincial Silver Award of the 7th "Internet +" College Students Innovation and Entrepreneurship Competition
National Bronze Award of the 6th "Internet +" College Students Innovation and Entrepreneurship Competition
Outstanding Student Cadre of Yunnan Province(5%)
Second-Class Scholarship for Academic Excellence(15%)
Third-Class Scholarship for Academic Excellence(25%)