

Zhongze LUO

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🎓 Education

🌳 Northeast Forestry University ([Project 211](#)) Communication Engineering 2021.09—2025.06

- GPA: 88.08/100 Ranking: 14/73 (Top 20%)

📁 Projects

Elderly Fall Alarm System Based on Raspberry PI and OpenCV 2022.12—2024.05
[National Undergraduate Innovation Training Program Project](#)

- As the project leader, I was responsible for organizing the proposal defense, writing the report, coordinating the progress, and supervising the major project tasks.
- The project used YOLOv5 to train the open source autumn data set, and compared different attention mechanisms to improve the model, and good results were achieved in the ablation experiment.
- The project also used Raspberry PI and Jeston Orin Nano as the model transplant carrier, connects the camera module and the communication module, and realizes the automatic trigger alarm function when the elderly fall.

📄 Papers

Elderly Fall Detection Algorithm Based on Improved YOLOv5s.
[Information Technology and Control. \(SCI Q3, IF:2\)](#) [\[link\]](#) *First Author*

A Compliance Checking Framework Based on Retrieval Augmented Generation.
[COLING 2025 Oral](#) [\[link\]](#) *Second Author*

ForPKG: A Framework for Constructing Forestry Policy Knowledge Graph and Application Analysis. [IJCNN 2025](#) [\[link\]](#) *Second(Corresponding) Author*

LawLuo: A Multi-Agent Collaborative Framework for Multi-Round Chinese Legal Consultation. [Under Review](#) [\[link\]](#) *Third Author*

👛 Internship

[BYD Company Limited](#) [\[link\]](#) 2024.01—2025.03

As a hardware intern, I learned to weld small capacitors, resistors and other components, including 0201MLCC, and MCU. I also learned hardware circuit knowledge, including DC-DC power supply, EMC protection, ADI power supply design, mastered the real vehicle measurement method, participated in the oscilloscope test of vehicle rear domain control circuit board, recorded steady state, shock, stall current, input waveform no-action voltage and action voltage, and used Excel to create a table to record the data.

[CUHKSZ T-Lab](#) [\[link\]](#) 2024.07—2025.01

As a visiting student, I joined the laboratory of the School of Science and Engineering (SSE) at the Chinese University of Hong Kong (Shenzhen) to study and conduct research in the direction of multimodal large models. I also carried out work in the direction of the evaluation of the chain of thought of large models, and constructed a multi-modal evaluation benchmark for physics problems.

🔧 Skills

Research interests include Knowledge Graph, Multimodal Large Language Models, LLM reasoning and evaluation. Familiar with python programming, and the training process and model deployment of deep learning models. Familiar with the use of Altium Designer and other PCB design software, also familiar with Linux operating systems.

🏆 Honors

University scholarship - First Prize 2022.03

National College Students Mathematical Contest in Modeling - Provincial First Prize 2022.11

China College Student Computer Design Competition - Third Prize 2024.08