

# Lu Xunqi

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## EDUCATION

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**Hefei University of Technology** Hefei, China  
*B.E. in Remote Sensing Science and Technology* Sep. 2021 – Jun. 2025

## CAMPUS EXPERIENCE

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**Study Secretary** Sep. 2022 – Jun. 2025  
**SMP 2023 (The Eleventh China National Conference on Social Media Processing) Volunteer** Nov. 2023  
**Volunteer Activities for the Country People** Jul. 2023 – Aug. 2023  
**Self-discipline Committee** Oct. 2021 – Jul. 2023  
*Director* Sep. 2022 – Jul. 2023  
**Student Union of the school** Sep. 2021 – Jul. 2023  
*Department Minister* Sep. 2022 – Jul. 2023  
**New Media Center** Sep. 2021 – Jul. 2022

## PROFESSIONAL EXPERIENCE

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**Hefei University of Technology** Hefei, China  
*Research Assistant* Jun. 2025 – Mar. 2026

- Research project: *Multi-level Collaborative Identification of Dominant Forest Tree Species Using Spaceborne Multi-source Remote Sensing Data*

**Institute of Artificial Intelligence, Hefei Comprehensive National Science Center** Hefei, China  
*Intern* Jul. 2023 – Dec. 2023 & Jan. 2024 – Jun. 2024

- Research project: *Research and Application of Ubiquitous Psychological Computing and Interactive Intervention Technology*
- Participated in tasks including assisting on a review work of the agents and community intelligence, writing a popular science article, formatting of scientific reports, and project performance evaluation report preparation, etc.
- The comprehensive evaluation grade of performance was EXCELLENT.

**Multimodal Affective Computing Lab** Hefei, China  
*NLP Team Member* Jul. 2022 – Jun. 2025

- Conduct research on a heterogeneous graph neural network for mathematical reasoning.
- Assisted on the research of a bottom-up graph neural network for expression solving.

## PROJECTS

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### Intelligent pavement damage detection based on deep learning

*Undergraduate Thesis*

- Developed an intelligent pavement damage detection system using YOLOv5 and integrated the Efficient Local Attention (ELA) module, significantly enhancing small-scale crack recognition under complex backgrounds.
- Built and curated a UAV-based pavement dataset (2,400+ images, 11k+ annotations) and optimized training pipelines, achieving a 13.9% improvement in mAP@0.5:0.95 compared to the baseline YOLOv5 model.

### Heterogeneous Graph Neural Network for Mathematical Reasoning

- Enhanced GraphMR (EMNLP 2021) by addressing the limitation of homogeneous node representations in semantic discrimination.
- Built a heterogeneous-graph reasoning model using an R-GCN encoder and Transformer decoder, achieving strong results on symbolic expression tasks (e.g., 99.7% on POLY1, 92.9% on MBA).

### Bottom-up Graph Representation Learning for Symbolic Expression Solving

- Participated in core technical research discussions, supporting the development and refinement of the bottom-up graph representation learning model.

## Other

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**Japanese:** JLPT N2 (preparing to take the N1 test).

**Awards:** Scholarships and competition prizes (AI/GIS/translation) amount to more than ten.

**Hobbies:** Drawing (Children's Painting Level 6), piano (Grade 5), badminton, photography, reading, etc.