



# Jiaxu Zhang

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Birthdate: 2001-04 Gender: Male



## SUMMARY

- I can accept high-intensity work on scientific research. I have **5 papers (first author)** published and indexed by SCIE, including IEEE TIM, IEEE JSTARS, IEEE Sensors Journal and Information Sciences.
- I used to be a Visiting Student learning computer vision and information fusion in **China Academy of Railway Sciences** (Top railway research academy in China).
- In Spring 2024, I worked as a Remote Lab Intern at **Hong Kong Polytechnic University**-Shenzhen Research Institute (PolyU, ranking 65th in QS 2024).
- My **research interests** include trustworthy classification, uncertainty reasoning and multi-source information fusion in computer vision, engineering and (or) medical science.
- I am proficient in Python (PyTorch), matlab, Latex, C++.
- More information about me is at <https://defzhangaa.github.io>.

## EDUCATION & LAB EXPERIENCE

### China Academy of Railway Sciences

Sep 2023 - Jun 2025

Visiting Student (during M.S.)

Beijing, China

### Sun Yat-sen University (QS 323th) 985 211

Sep 2023

Master's Degree in Information and Communication System

Shenzhen, China

- National scholarship for Postgraduates; First-class scholarship for freshman of SYSU
- GPA: 3.25/4.00, Avg score: 81.50/100.00

### Northeast Forestry University 211

Sep 2019

Bachelor's Degree in Information and Computing Science (Computational Mathematics)

Harbin, China

- National scholarship for Undergraduates
- GPA: 4.26/5.00, Avg score: 94.57/100.00, (**Top 5.17%**, 1/58 ranked for Comprehensive evaluation, 3/58 ranked for GPA)

## REVIEW EXPERIENCE

- I am a reviewer of *Information Sciences* and *High-speed Railway*.

## PUBLICATIONS

- 1. Rail Surface Defect Detection Through Bimodal RSDINet and Three-Branched Evidential Fusion (1st author)** Mar 2024  
- IEEE Transactions on Instrumentation and Measurement (JCR Q1)
- 2. Robust Rail-track Section Identification with Multiple Structured Light Sensors and Kernel-based Belief Sensor-credibility Evaluation (1st author)** Mar 2024  
- IEEE Sensors Journal (JCR Q1)
- 3. Deep Evidential Remote Sensing Landslide Image Classification with a New Divergence, Multiscale Saliency and an Improved Three-Branched Fusion (1st author)** Feb 2024  
- IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing (JCR Q1)
- 4. A New "E-E" Paradigm to Construct Multi-BPAs Based Belief Jensen Divergence in the Evidence Theory (1st author)** Apr 2024  
- Information Sciences (JCR Q1 when accepted)
- 5. A Deep Evidence Fusion Framework for Apple Leaf Disease Classification (2nd author)** Jul 2024  
- Engineering Applications of Artificial Intelligence (JCR Q1)
- 6. An Inspection Method of Rail Head Surface Defect via Bimodal Structured Light Sensors (7th author)** Dec 2022  
- International Journal of Machine Learning and Cybernetics (JCR Q2)
- 7. An Enhanced Pignistic Transformation-based Fusion Scheme with Applications in Image Segmentation (1st author)** Feb 2023  
- IEEE Access (JCR Q2)

HONORS & AWARDS

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|---|----------|
| - China National scholarship - SYSU (Highest Honor for postgraduates in China, Top 1/63)                      | Sep 2024 |
| - China National scholarship - NEFU (Highest Honor for undergraduates in China, Top 1/122)                    | Dec 2020 |
| - First-class freshman scholarship - SYSU   | Sep 2023 |
| - Finalist award - Mathematical Contest In Modeling & Interdisciplinary Contest In Modeling (MCM/ICM, Top 2%) | Apr 2021 |
| - National second-class award - China Undergraduate Mathematical Contest in Modeling (CUMCU)                  | Oct 2021 |

ACADEMIC SOCIAL ACTIVITY

|   |          |
|---|----------|
| - I was invited as an Oral Presenter of 7th Global Intelligent Industry Conference hold in Shenzhen, China. | Apr 2024 |
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MISCELLANEOUS

- **Skills:** C++, Python (ML & Image processing), Matlab (Image processing), Latex, Visio
- **Languages:** English (Able to read English academic articles and professional textbooks fluently)
- **Interests:** Machine Learning, Image Processing, Data Science, Information Fusion

PROJECT EXPERIENCE

1. Software & Algorithm Development Intern: Hong Kong Polytechnic University

May 2024 - Jul 2024

  - In this project, I exploited C++ and Pytorch to develop an urban remote sensing target detection software for the team, and the target detection module was implemented by YOLOV5-Lite based on TensorRT acceleration. I used Qt6 to realize the functions of interface display, basic file reading and writing and detection target selection.
2. A Research Project Supported by National Natural Science Foundation of China: China Academy of Railway Sciences

Jan 2023 - Present

  - I implemented a multi-modal railway foreign body detection algorithm for this project. I fully participated in and completed the tasks of data collection, data cleaning, algorithm implementation and paper writing. Four papers have been published in association with this project.