# Jiaxu Zhang

+86-182-6931-6702 zhangjx283@mail2.sysu.edu.cn
http://defzhangaa.github.io
2001-04 Male

## SUMMARY

- I can accept high-intensity work on scientific research. I have **4 papers (first author)** published, including IEEE TIM, IEEE JSTARS and IEEE Sensors Journal.
- I used to be a Visiting Student in **China Academy of Railway Sciences** (Top railway research academy in China).
- My **research interests** include uncertainty reasoning, information fusion, intelligent (or fuzzy) decision-making in engineering and artificial intelligence systems.
- I am proficient in Python (PyTorch), matlab, Latex, C++.
- More information about me is at **http://defzhangaa.github.io**.

## EDUCATION

**Sun Yat-sen University** 985 211 Sep 2023 - Jun 2026
Master in Information and Communication System Shenzhen, Guangdong Prov., China

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

**China Academy of Railway Sciences** Sep 2023 - Jun 2025
Visiting Student (during M.S.) Chaoyang, Beijing, China

**Northeast Forestry University** 211 Sep 2019 - Jun 2023
Bachelor in Information and Computing Science (Computational Mathematics) Harbin, Heilongjiang Prov.

- **National scholarship** (Highest honor for Chinese undergraduates); Scholarships for outstanding students; Outstanding graduate of the school
- 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*** (JCR Q1).

## 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. 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)

**5. Associative Classification Algorithm Based on Pignistic Probability Transform and Deng Entropy (2nd author, 1st author-my supervisor)** May 2023
- *Computer Engineering and Design (in Chinese)*

**6. An Enhanced Pignistic Transformation-based Fusion Scheme with Applications in Image Segmentation (1st author)** Feb 2023

- *IEEE Access* (JCR Q2)

**7. 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, Second round review completed)

## HONORS & AWARDS

- 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

## 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. Students Innovation Project in Heilongjiang Prov. : Implementation of a Classifier Based on D-S Evidence Theory** May 2021 - May 2022

- As the team leader, I participated in the research discussion class with graduate students, made slides to report the experimental progress and produced 4 academic papers under the guidance of my undergraduare supervisor.

**2. Laboratory Experience: Network Security Center of Northeast Forestry University-Network Security Laboratory** Jul 2021 - Jun 2023

- I cooperated with my supervisor to develop a classification algorithm based on Random Forest for Abnormal Network Flow Detection (CIC-IDS-2017), which is used to compare the performance of the algorithm proposed by my supervisor.

**3. "Internet+" - National Students' Innovation and Entrepreneurship Competition: Identification System for Students with Family Difficulties Based on Machine Learning and Deep Learning** Jan 2021 - May 2021

## ACADEMIC SOCIAL ACTIVITY

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