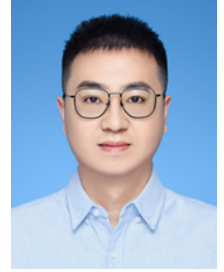

Dongwei Sun (孙冬伟)

PERSONAL INFORMATION

Gender and marital status: Male | Single
Address: Xi'an Jiaotong University
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Personal Website: <https://sundongwei.github.io/>



EDUCATION

Sep. 2024 – Present **Ph. D candidate in Computer Science**
School of Computer Science and Technology, Xi'an Jiaotong University, Xi'an, China
Research interests: Remote Sensing/Medical Image Processing
Supervisor: Prof. Dr. Xiangyong Cao

May 2021 – Mar. 2023 **Associate Research Fellow, Department of Navigation (State Key Laboratory)**
Research Institute of China Electronics Technology Co., Ltd

Sep. 2018 – Apr. 2021 **M.S. in Computational Mathematics, Recommended Postgraduate**
School of Mathematics and Statistics, Northwestern Polytechnical University, Xi'an, China
Research interests: Image Segmentation, **GPA: 3.60/4.00**
Thesis: "[DPANet: Dual pooling attention network for semantic segmentation](#)"

Sep. 2014 – Jul. 2018 **B.S. in Computational Mathematics, Recommended Postgraduate**
School of Mathematics and Statistics, Inner Mongolia University of Technology, Hohhot, China
B.S. in Bachelor of Economics (Double Major)
GPA: 3.90/4.0 Rank: 1/85

PUBLICATIONS

Published or Accepted

- **Dongwei Sun**[†], Yu Wang[†], J. Yao, X. Cao and P. Ghamisi, "SCNet: Lightweight Spatial-Channel Attention Network for Remote Sensing Change Captioning", IEEE Transactions on Geoscience and Remote Sensing. (Major Revision)
- **Dongwei Sun**, J. Yao, X. Cao and P. Ghamisi, "Mask Approximation Net: A Novel Diffusion Model Approach for Remote Sensing Change Captioning", IEEE Transactions on Geoscience and Remote Sensing, doi: 10.1109/TGRS.2025.3587261.
- **Dongwei Sun**, Y. Bao, J. Liu, and X. Cao, "A lightweight sparse focus transformer for remote sensing image change captioning", IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, vol. 17, pp. 18727–18738, 2024, doi: 10.1109/JSTARS.2024.3471625.
- Y. Song, **Dongwei Sun**, and X. Xie, "Active contours driven by gaussian function and adaptive-scale local correntropy-based k-means clustering for fast image segmentation", Signal Processing, vol. 174, p. 107 625, 2020.

PATENTS

-
- X. Cao, J. Zhang, **Dongwei Sun**, Y. Miao, B. Du, D. Meng. *An Auxiliary Diagnosis and Treatment Method and Device for Oral Mucosal Diseases Based on a Medical Large Model*. Invention Patent, Application No. 2025111518722.

PROJECT EXPERIENCE

- Sep. 2023 – Present **Symbolic Logic-Driven Image Interpretation (Position: Core Member)**
- **Project Introduction:** The aim is to construct an image interpretation model powered by symbolic logic, where real-time collected images are input into the model for scene parsing, enabling multi-task interpretation of visual images.
 - **Personal Contribution:** The overall question-answering accuracy should not be lower than 90%, while the mean reciprocal rank (MRR) of the answers should not be less than 80%.
- Aug. 2022 – Jun. 2023 **Gesture Recognition and Efficiency Enhancement on XX Platform (Position: Leader)**
- **Project Introduction:** Achieve reliable recognition of hand gesture commands for operators in complex environments on the XX platform, improving the efficiency of XX transportation.
 - **Personal Contribution:** Achieve an accuracy of no less than 98% and a recognition update rate of no less than 20Hz for six upper body key points.
- Dec. 2021 – Dec. 2022 **XX specific object detection based on Yolo with attention (Position: Leader)**
- **Project Introduction:** An improved YOLO network is proposed for the environment such as high altitude and high intensity light, which not only ensures the requirement of model stable and robust with a fast speed, but also improves the single small object detection capability.
 - **Personal Contribution:** Deploying the model on Nvidia AGX hardware by TensorRT where accuracy of no less than 95%, FPS is 50+/S.

TECHNICAL SKILLS

- **Programming Languages:** Reasonably familiar with **Python**; Generally familiar with **C++** and **CUDA**.
- **Algorithm:** Familiar with several ML/CV algorithms including: Neural networks, Transformer and Diffusion etc.
- **Deep learning Frameworks:** Proficient in framework **PyTorch & MXNet**, as well as general OpenCV, Scikit-learn etc.
- **Software & Tools:** Mathematica, MatLab, Microsoft Office, LaTeX.

ACADEMIC HONORS & SCHOLARSHIPS

The Outstanding Novice Employee Award [Top 3%]	2022
2021 Intelligent UAV Racing Championship [The third Prize]	2021
The 2018&2019 academic year [Major Award]	2018, 2020
Excellent graduate	2018

PROFESSIONAL SERVICES

IEEE Transactions on Geoscience and Remote Sensing– Reviewer
 IEEE Transactions on Circuits and Systems for Video Technology – Reviewer
 IEEE Transactions on Instrumentation & Measurement – Reviewer