Yang Liu

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Education

Xi'an Jiaotong University, Shaanxi, China   Sep 2022 – Present
Master of Software Engineering (Expected in Jul 2025)
GPA: 3.73/4.0, National scholarship

Northwest A&F University, Shaanxi, China   Sep 2018 – Jul 2022
Bachelor of Software Engineering
GPA: 3.59/4.0, First-class scholarship

Publications

Spectral Aggregation Cross-Square Transformer for Hyperspectral Image Denoising   Jun 2023 – Feb 2024

- A novel self-attention mechanism has been devised, focusing on boosting the data exchange across Hyperspectral Images (HSIs) to grasp the comprehensive spatial-spectral context post window segmentation.
- ***ICPR2024 | Yang Liu**, Yantao Ji, JiaHua Xiao**, Yu Guo, Peilin Jiang, Haiwei Yang, Fei Wang*

HSIDMamba: Exploring Bidirectional State-Space Models for Hyperspectral Denoising   Feb 2024 – present

- **First to introduce** a simple yet effective Bidirectional State-Space Model for HSI denoising, thereby devising a novel architecture distinct from CNNs and transformers.
- ***Under Reversion | Yang Liu**, JiaHua Xiao, Xiang Song, Yu Guo, Peilin Jiang, Fei Wang*

Region-Aware Sequence-to-Sequence Learning for Hyperspectral Denoising   Jul 2023 – Jan 2024

- Introduce an innovative spatial spectral region sensing module RASeq2Seq, uniquely attuned to semantically diverse regions, which amplifies the potential of Seq2Seq learning for spectral analysis.
- ***ECCV2024 | JiaHua Xiao, Yang Liu, Xing Wei***

Bridging Fourier and Spatial-Spectral Domains for Hyperspectral Image Denoising   Aug 2023 – Feb 2024

- Highlight that after converting HSI into the time-frequency domain, noise and spectral reflection traits predominantly manifest in the amplitude, while the phase retains crucial structural image information.
- ***ACMMM2024 | JiaHua Xiao, Yang Liu, Xing Wei***

Grants and Awards

- National Scholarship of China   2023, 2024
- First class scholarship of Shenzhen Stock Exchange   2023
- Outstanding Graduate Student   2023, 2024
- Merit Student   2019, 2020, 2021

Leadership & Activities

- Table Tennis Team Leader of College of Information Engineering, NWAFU   Aug 2019 – Sep 2021
- Monitor of Software Engineering Class 2, NWAFU   Aug 2018 – Sep 2022

Skills

- Adept in Python, C++, Linux, Pytorch, Matlab, Qt.
- Language: Chinese Mandarin (Native); IELTS: 6.5; GRE: 319(V152, Q167, AW3).
- Hobbies: Table tennis, Music, Cycling.