

Xin Qiao



1. Background

B.Eng., Dalian Maritime University, June 2018

M.Eng., Zhejiang University, June 2021

PhD., Memorial University, May 2025 (expected)

2. Thesis and Supervisors

Deep learning methods for hyperspectral image classification and ocean sensing using GNSS-R

• Supervisor: Dr. Weimin Huang

3. Publication

- 1) X. Qiao, S.K.Roy and W. Huang, “3D Sharpened Cosine Similarity Operation for Hyperspectral Image Classification,” *IEEE J. Sel. Topics Appl. Earth Observ. Remote Sens.*, vol. 17, pp. 1114-1125, 2024.
- 2) X. Qiao and W. Huang, “Hyperspectral Image Classification Using Multi-scale Neighborhood Attention Transformer,” *IEEE NECEC Conference*, St. John's, Canada, 2023.
- 3) X. Qiao and W. Huang, “A dual frequency transformer network for hyperspectral image classification,” *IEEE J. Sel. Topics Appl. Earth Observ. Remote Sens.*, vol. 16, pp. 10344-10358, 2023.
- 4) X. Qiao, S.K.Roy and W. Huang, “Multi-scale Neighborhood Attention Transformer with Optimized Spatial Pattern for Hyperspectral Image Classification,” *IEEE Trans. Geosci. Remote Sens.*, vol. 61, article sequence 5523815, 2023.
- 5) X. Qiao, S. K. Roy, and W. Huang, “Rotation is All You Need: Cross Dimensional Residual Interaction for Hyperspectral Image Classification,” *IEEE J. Sel. Topics Appl. Earth Observ. Remote Sens.*, vol. 16, pp 5387-5404, 2023.

- 6) X. Qiao, S. K. Roy, and W. Huang, “[Hyperspectral image classification based on 3D sharpened cosine similarity operation](#),” in *Proc. IEEE Int. Geosci. Remote Sens. Symp.*, Pasadena, California, USA, 2023.
- 7) X. Qiao and W. Huang, “[Spectral-Spatial-Frequency Transformer Network for Hyperspectral Image Classification](#),” in *Proc. IEEE Sensors Appl. Symp.*, Ottawa, Canada, 2023.
- 8) X. Qiao and W. Huang, “[Sharpened Cosine Distance Convolutional Network for Hyperspectral Image Classification](#)”, *IEEE NECEC Conference*, St. John's, Canada, 2022.

4. Award

- Wally Read Best Student Paper Award, IEEE NECEC Conference, St. John's, Canada, 2022.