

QI MING

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Education

Ghent University

Visiting Ph.D. in Faculty of Engineering and Architecture,

supervisor: Prof. Aleksandra Pizurica 🏠

Oct. 2022 – Oct.2023 (Expected)

Ghent, Belgium

Beijing Institute of Technology

Ph.D. in Guidance, Navigation, and Control, supervisor: Prof. Lingjuan Miao 🏠

Sep. 2019 – Jul.2024 (Expected)

Beijing, China

GPA: 4.0/4.0

Beijing Institute of Technology

M.Eng. in Guidance, Navigation, and Control, supervised: Prof. Lingjuan Miao 🏠

Sep. 2018 – Jul. 2019

Beijing, China

GPA: 3.8/4.0

Beijing Institute of Technology

B.Eng. in Automation

Sep. 2014 – Jul. 2018

Beijing, China

GPA: 3.6/4.0

Publications & Manuscripts

Publications

- Dynamic Anchor Learning for Arbitrary-Oriented Object Detection
Q. Ming, Z. Zhou, L. Miao, H. Zhang, L. Li,
Proceedings of the Thirty-Five AAAI Conference on Artificial Intelligence (AAAI), 2021. 📄 🌐 📄 📄
- CFC-Net:A Critical Feature Capturing Network for Arbitrary-Oriented Object Detection in Remote Sensing Images
Q. Ming, L. Miao, Z. Zhou, Y. Dong,
IEEE Transactions on Geoscience and Remote Sensing (TGRS) (SCI Q1 Top, IF=8.125) , 2021. 📄 🌐
- Sparse Label Assignment for Oriented Object Detection in Aerial Images
Q. Ming, L. Miao, Z. Zhou, J. Song, X. Yang,
Remote Sensing (RS) (SCI Q2, IF=5.349) , 2021. 📄 🌐
- Optimization for Arbitrary-Oriented Object Detection via Representation Invariance Loss
Q. Ming, Z. Zhou, L. Miao, X. Yang, Y. Dong,
IEEE Geoscience and Remote Sensing Letters (GRSL) (SCI Q2, IF=5.343) , 2021. 📄 🌐
- Fine-Grained Object Detection in Remote Sensing Images via Adaptive Label Assignment and Refined-Balanced Feature Pyramid Network
J. Song, L. Miao, **Q. Ming**, Z. Zhou, Y. Dong, *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing (JSTARS)* (SCI Q3, IF=4.715) , 2022. 📄
- Rethinking Rotated Object Detection with Gaussian Wasserstein Distance Loss
X. Yang, J. Yan, **Q. Ming**, W. Wang, X. Zhang, Q. Tian
Proceedings of the Thirty-eighth International Conference on Machine Learning (ICML), 2021. 📄 🌐
- Learning High-Precision Bounding Box for Rotated Object Detection via Kullback-Leibler Divergence
X. Yang, X. Yang, J. Yang, **Q. Ming**, W. Wang, Q. Tian, J. Yan. *Proceedings of the Thirty-fifth Annual Conference on Neural Information Processing Systems (NeurIPS)*, 2021. 📄 🌐

Manuscripts

- Gradient Calibration Loss for Fast and Accurate Oriented Bounding Box Regression
Q. Ming, L. Miao, Z. Zhou, J. Song, (*Under review*)
- Task Interleaving and Orientation Estimation for High-Precision Oriented Object Detection in Aerial Images
Q. Ming, L. Miao, Z. Zhou, J. Song, Y. Dong, X. Yang, (*Under review*)
- Oriented Feature Alignment for Fine-grained Object Recognition in High-Resolution Satellite Imagery
Q. Ming, J. Song. (*Technical report*) 📄

Experience

Institute of Navigation, Guidance and Control

Sep. 2018 – Present

Ph.D. candidate

Beijing, China

- Participated in 2022 RoboMaster University AI Challenge (RMUA) and won the **3rd** prize.
- Participated in 2022 iFLYTEC A.I. Developer Competition on remote sensing object extraction. **Rank:** 9/416 (top 2%)
- Participate in 2022 GaoFen Challenge on Automated High-Resolution Earth Observation Image Interpretation. **Rank:** winning team, 6/220

Xlab in Second Research Academy of CASIC

Sep. 2022 – Nov. 2022

Research intern

Beijing, China

- Conducted research related to 3D object detection based on point cloud data. An IoU-based loss was designed to perform gradient correction.

Service

Journal Review

IEEE Transactions on Geoscience and Remote Sensing (TGRS), IEEE Geoscience and Remote Sensing Letters (GRSL), International Journal of Digital Earth (IJDE), Journal of Visual Communication and Image Representation (JVCI)

Conference Review

CVPR2022, ECCV2022, 3DV2022, CVPR2023