Jingxiang Qu

Age： 25 **Mail:** Jingxiang.qu@stonybrook.edu
Research Interests： Equivariant Learning, Multimodal/Graph Learning.
Computer Science Department, Stony Brook University.

EDUCATION

Jiangsu University of Science and Technology   Zhenjiang, China | *2017.09-2021.06*

Bachelor of Engineering (Internet of Things Engineering)
- GPA：3.56 / 5.0   Ranking：Top 02 / 35

Wuhan University of Technology   Wuhan, China | *2021.09-2024.06*

Master of Engineering (Traffic Information Engineering and Control)
- GPA：91.16 / 100   Ranking：Top 01 / 41

Stony Brook University   New York, USA | *2024.08-Now*

Computer Science PhD

PUBLICATIONS

Journals:

- **Qu, J.**, Liu, R. W., Zhao, C., Guo, Y., Xu, S. S. D., Zhu, F., & Lv, Y. (2023). Multi-Task Learning-Based Automatic Vessel Draft Reading for Intelligent Maritime Surveillance. *IEEE Transaction on Intelligent Transportation System (IEEE T-ITS)*. **(JCR Q1)**

- **Qu, J.**, Liu, R. W., Gao, Y., Guo, Y., Zhu, F., & Wang, F. Y. (2023). Double Domain Guided Real-Time Low-Light Image Enhancement for Ultra-High-Definition Transportation Surveillance. *IEEE Transaction on Intelligent Transportation System (IEEE T-ITS)*. **(JCR Q1)**

- **Qu, J.**, Gao, Y., Lu, Y., Xu, W., & Liu, R. W. (2023). Deep learning-driven surveillance quality enhancement for maritime management promotion under low-visibility weathers. *Ocean & Coastal Management*. vol. 235, 106478. **(JCR Q1)**

- **Qu, J.**, Liu, R. W., Guo, Y., Lu, Y., Su, J., & Li, P. (2023). Improving maritime traffic surveillance in inland waterways using the robust fusion of AIS and visual data. *Ocean Engineering*. vol. 275, 114198. **(JCR Q1)**

- Guo, Y., Liu, R. W., **Qu, J.**, Lu, Y., Zhu, F., & Lv, Y. (2023). Asynchronous Trajectory Matching-Based Multimodal Maritime Data Fusion for Vessel Traffic Surveillance in Inland Waterways. *IEEE Transaction on Intelligent Transportation System (IEEE T-ITS)*. vol. 24, pp. 12779 - 12792. **(JCR Q1)**

- Zhao C., Liu, R. W., **Qu, J.**, Gao. R. (2023). Deep Learning-Based Object Detection in Maritime Unmanned Aerial Vehicle Imagery: Review and Experimental Comparisons. *Engineering Applications of Artificial Intelligence (EAAI)* vol. 128, 107513. **(JCR Q1)**

- Guo, Y., Lu, Y., **Qu, J.**, Liu, R. W., & Ren, W. (2022). MDSFE: Multi-scale Deep Stacking Fusion Enhancer Network for Visual Data Enhancement. *IEEE Transactions on Instrumentation and Measurement (IEEE T-IM)*. vol. 72, pp. 1 - 12. **(JCR Q1)**

Conferences:

- **Qu, J.**, Guo, Y., Lu, Y., Zhu, F., Huan, Y., & Liu, R. W. (2022). Intelligent maritime surveillance framework driven by fusion of camera-based vessel detection and AIS data. In *2022 IEEE 25th International Conference on Intelligent Transportation Systems (ITSC).*

- **Qu, J.**, Liu, R. W., Nie, J., Deng, X., Xiong, Z., Zhang, Y., ... & Niyato, D. (2022). Edge Computing-Enabled Multi-Sensor Data Fusion for Intelligent Surveillance in Maritime Transportation Systems. In *2022 IEEE Intl Conf on Dependable, Autonomic and Secure Computing (DASC).*

- Li, X., Lu, Y., Guo, Y., **Qu, J.**, & Liu, R. W. (2022). Rep-Enhancer: Re-parameterizing Neural Network for Real-time Low-light Enhancement in Visual Maritime Surveillance. In *2022 IEEE 20th International*

Conference on Embedded and Ubiquitous Computing (EUC).

- Guo, Y., Gao, Y., Liu, W., Lu, Y., **Qu, J.**, He, S., & Ren, W. (2023). SCANet: Self-Paced Semi-Curricular Attention Network for Non-Homogeneous Image Dehazing. In *Proceedings of the IEEE conference on computer vision and pattern recognition workshops (CVPRW)*.

Patents:
- Liu, R. W., **Qu, J.,** Guo, Y., Bao, M., Zhao, C. Tracking and identification methods, devices, electronic devices, and storage media for multiple ship targets. *US Patent.*

- Liu, R. W., **Qu, J.,** Zhao, C., Zhang, Y., Guo, Y. Automatic detection method and device for ship draft, *US Patent.*

WORK EXPERIENCES

Zhejiang Sunglory Marine Technology Co., Ltd: | **Algorithm Development Engineer** *2022.06-2022.08*

- Developing a multi-sensor data fusion-based intelligent vessel navigation system, which has been applied on multiple vessels in Zhejiang Province, China.

Stony Brook University: | **Teaching Assistant.** *2024.08. - Now*

- Helping the instructor for grading and office hours.

HONORS & AWARDS

- **Graduate Student National Scholarship 1%** (2023)
- **The First Prize,** Graduate Academic Seminar on "Intelligent Navigation and Qualified Mariner Training" (2023)
- **The Third Prize,** The 5th China Postgraduate Robot Innovation and Design Competition (2023)
- **The Third Prize**, The 19th China Post-Graduate Mathematical Contest in Modeling (2022).
- **The First Prize,** The 11st National Marine Vehicle Design and Production Competition (2022)
- **University Outstanding Postgraduate**. Wuhan University of Technology (2022).
- **Graduate Students' First-Class Scholarship**. Wuhan University of Technology (2022).
- **University Outstanding Undergraduate**. Jiangsu University of Science and Technology (2021).
- **The Third Prize,** The 13rd Chinese Collegiate Computing Competition (2020)
- **University Outstanding Cadre.** Jiangsu University of Science and Technology (2018-2019).

SKILLS

- **Computer:** Microsoft Excel, PowerPoint, Word, Visio, Origin.
- **Programming:** Python (Pytorch), C++, C# (Unity3D).