# **Xiang Liu**

#### MS Student

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#### About me

I am a first-year MS student in the <u>Department of Computer Science</u>, <u>Ocean University of China</u>, advised by <u>Prof. Guoqiang Zhong</u>. In particularly, I also work in the <u>Innovation Center</u> for some engineering AI projects and research. I mainly interest in the research of neural networks lightweighting, also experienced in multi-object detection and tracking. Recently, I am focusing on edge AI research and deployment, such as the optimization of MNN for Raspberry Ri, OpenVino for Neural Compute Stick. I obtained my BS degree (2020) in Ocean University of China, where I worked on deep networks compression and acceleration. During the summer of 2019, I went to <u>Institute of Advanced Study</u> in <u>Shenzhen University</u> (study in quantitative finance) and <u>Pohang University of Science and Technology</u> in South Korea for exchanges.

## **News:**

2020.11: one paper is accepted by IEEE Access.

2020.10: one paper is accepted by MDPI Sensors.

2020.07: graduation work (research on quantum clustering algorithm) was awarded as excellent thesis.

2019.11: one paper is accepted by Springer Cognitive Computation.

2019.11: one paper is accepted by IEEE Access.

2019.09: received national second prize of the Huawei Cup: Intelligent Design Competition for University Student.

2019.08: received national second prize of the Marine Vehicle Design and Production Competition.

2019.07: received conditional offer from Shenzhen (University) Institute of Advanced Study.

## **Publications:**

# **Neural Networks Compression and Acceleration**

Li-Na Wang, Wenxue Liu, <u>Xiang Liu</u>, Guoqiang Zhong, Partha Pratim Roy, Junyu Dong, and Kaizhu Huang. "Compressing Deep Networks by Neuron Agglomerative Clustering." Sensors 20, no. 21 (2020): 6033. [pdf]

Xiang Liu, Li-Na Wang, Wenxue Liu, and Guoqiang Zhong. "Incremental Layers Resection: A Novel Method to Compress Neural Networks." IEEE Access 7 (2019): 172167-172177. [pdf] Guoqiang Zhong, Wenxue Liu, Hui Yao, Tao Li, Jinxuan Sun, and Xiang Liu. "Merging Similar Neurons for Deep Networks Compression." Cognitive Computation (2020): 1-12. [link]

# **Underwater Vision System & Multi-Object Tracking**

Xinliang Zhang, Huimin Zeng, Xiang Liu, Zhibin Yu, Haiyong Zheng, and Bing Zheng. "In Situ Holothurian Noncontact Counting System: A General Framework for Holothurian Counting." *IEEE Access* 8 (2020): 210041-210053. [pdf]

## Awards:

Excellent Bachelor's Thesis.

Excellent degree for the first OUC Innovation Guidance Special Project.

National second prize of the Huawei Cup: Intelligent Design Competition for University Student.

National second prize of the Marine Vehicle Design and Production Competition.

Ranked 4th in north China in Future Cup: College AI Challenge.

Academic Excellence Scholarship (twice).

Science and Technology Innovation Scholarship.

# **Professonal Activities:**

CCF student member;

CAAI student member;

Former academic director of Intelligent Data Analysis Club, OUC;

Former national defense student of people navy;

Former starbucks barista.