# Feng Gao (高峰)

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# **Appointment**

#### Ocean University of China

Associate Professor

- Department of Computer Science and Engineering

Qingdao, China 2015 - Present

#### **Education**

Beihang Univeristy

Ph.D. Computer Science

(Under supervision of Prof. Bo Li)

Beijing, China *2010 - 2015* 

School of Computer Science and Engineering

Beihang Univeristy

(Under supervision of Prof. Bo Li)

Beijing, China 2008 - 2010

- School of Computer Science and Engineering

Chongqing Univeristy

Chongqing, China 2004 - 2008

B. Eng. Software Engineering

M. Eng. Computer Science

- School of Big Data & Software Engineering

## **Research Interests**

- Deep learning: Convolutional Neural Networks, Deep Autoencoder for Image Analysis, Deep Ensemble Learning, Generative Adversarial Networks
- Efficient Feature Learning: Heterogeneous Feature Learning, Unsupervised Feature Selection, Deep Feature Learning, Metric Learning
- Multimedia Computing: Visual Question Answering, Multi-Modal Data Fusion, Cross-Media Analysis and Reasoning, Image Retrieval

#### **Selected Publications**

#### Journal Papers

- Yuhao Gao, Feng Gao\*, Junyu Dong, Shengke Wang. Transferred deep learning for sea ice change detection from synthetic aperture radar Images, *IEEE Geoscience and Remote Sensing Letters*, DOI: 10.1109/LGRS. 2019.2906279, 2019.
- Feng Gao, Xiao Wang, Yunhao Gao, Junyu Dong, Shengke Wang. Sea ice change detection in SAR images based on convolutional-wavelet neural networks. *IEEE Geoscience and Remote Sensing Letters*, vol. 16, no. 8, pp. 1240-1244, Aug. 2019.
- Feng Gao, Qun Wang, Junyu Dong, Qizhi Xu. Spectral and spatial classification of hyperspectral images based on random multi-graphs. *Remote Sensing*, 2018, vol. 10, no. 8, pp. 1–20, 2018.

- Feng Gao, Xiao Wang, Junyu Dong, Shengke Wang. SAR image change detection based on frequency domain analysis and random multi-graphs. *Journal of Applied Remote Sensing*, vol. 12, no. 1, 016010, 2018.
- Feng Gao, Xiaopeng Liu, Junyu Dong, Guoqiang Zhong, Muwei Jian. Change detection in SAR images based on deep Semi-NMF and SVD networks. *Remote Sensing*, vol. 9, no. 5, pp. 1–20, 2017.
- Xin Sun, Fei Zhou, Junyu Dong, Feng Gao, Quanquan Mu, Xinhua Wang. Encoding spectral and spatial
  context information for hyperspectral image classification. *IEEE Geoscience and Remote Sensing Letters*, vol.
  14, no. 12, pp. 2250–2254, 2017.
- Feng Gao, Junyu Dong, Bo Li, Qizhi Xu, Cui Xie. Change detection from synthetic aperture radar images based on neighborhood-based ratio and extreme learning machine. *Journal of Applied Remote Sensing*, vol. 10, no. 4, 046019, 2016.
- Feng Gao, Junyu Dong, Bo Li, Qizhi Xu. Automatic Change Detection in Synthetic Aperture Radar Images Based on PCANet. *IEEE Geoscience and Remote Sensing Letters*, vol. 13, no. 12, pp. 1792–1796, 2016.
- Feng Gao, Bo Li, Qizhi Xu, Robust aircraft segmentation from VHR images based on bottom-up and top-down cues integration. *Journal of Applied Remote Sensing*, vol. 10, no. 1, 016003, 2016.
- Feng Gao, Bo Li, Qizhi Xu, Chen Zhong, Moving vehicle information extraction from single-pass WorldView-2 imagery based on ERGAS-SNS analysis, *Remote Sensing*, vol. 6, no. 7, pp. 6500–6523, 2014.

#### Conference Papers

- Junjie Wang, Feng Gao, Junyu Dong, Shengke Wang. Synthetic aperture radar images change detection based on random label propagation, *International Workshop on the Analysis of Multitemporal Remote Sensing Images* (MultiTemp), 2019.
- Dong Wang, **Feng Gao**, Junyu Dong, Shengke Wang. Change detection in synthetic aperture radar images based on convolutional block attention module, *International Workshop on the Analysis of Multitemporal Remote Sensing Images* (MultiTemp), 2019.
- Xiao Wang, Feng Gao, Junyu Dong, Shengke Wang. Sea ice change detection from SAR images based on canonical correlation analysis and contractive autoencoders, *Pacific-Rim Conference on Multimedia* (PCM), 2018.
- Dong Wang, Feng Gao, Junyu Dong, Shengke Wang. Sea ice classification from hyperspectral images based on self-paced boost learning, *IEEE International Geoscience and Remote Sensing Symposium* (IGARSS), 2018.
- Yunhao Gao, Feng Gao, Junyu Dong, Shengke Wang. Sea ice change detection in SAR images based on collaborative representation, IEEE International Geoscience and Remote Sensing Symposium (IGARSS), 2018.
- Yandong Li, **Feng Gao**, Junyu Dong, Shengke Wang. A novel sea ice classification method from hyperspectral image based on bagging PCA hashing, *International Workshop on Earth Observation and Remote Sensing Applications* (EORSA), 2018.
- Qun Wang, Feng Gao, Junyu Dong, Sea ice change detection from synthetic aperture radar images based on self-paced boosting learning, International Workshop on Earth Observation and Remote Sensing Applications (EORSA), 2018.

#### Awards and Honors

- The 3rd prize in Underwater Image Enhancement Competition in Chinese Conference on Multimedia (ChinaMM), 2019. (5/33)
- The 3rd prize in Baidu & XJTU Big Data Contest, 2019. (11/2312)

- Two 2nd prize and one 3rd prize in the 9th "Huawei Cup" National Artificial Intelligent Design Competition, 2019.
- Excellent instructor, two 2nd prize and two 3rd prize in the 8th "Huawei Cup" National Artificial Intelligent Design Competition, 2018.
- The 3rd prize in Internet Contest for Cloud & Mobile Computing (ICOME), 2013. (Top 2%)
- Chancellor's scholarship, Beihang University, 2013.
- Student travel grant. IEEE International Geoscience and Remote Sensing Symposium (IGARSS) 2011.

#### Reviewer

- IEEE Transactions on Geoscience and Remote Sensing (TGRS)
- IEEE Geoscience and Remote Sensing Letters (GRSL)
- IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing (JSTARS)
- Knowledge-Based Systems
- Multimedia Tools and Applications
- Neurocomputing
- Journal of Electronic Images (JEI)
- Journal of Applied Remote Sensing (JARS)

## **Professional Associations**

- Institute of Electrical and Electronics Engineers (IEEE)
- China Computer Federation (CCF)
- CCF Young Computer Scientists & Engineers Forum (YOCSEF)
- China Society of Image and Graphics (CSCG)
- Chinese Association for Artificial Intelligence (CAAI)