# SICHAO FU

School of Electronic Information and Communications, Huazhong University of Science and Technology
Address: ♯ 1037 Luoyu Road, Hongshan District, Wuhan 266580,China
Email: fusichao_upc@163.com ⋄ Academic Homepage: https://sichaofu.github.io/MyWebpages/

## EDUCATION

**Huazhong University of Science and Technology, Wuhan, Hubei** Sep. 2020– Now
Ph.D. in Information and Communication Engineering
Supervisor Professor Xinge You

**China University of Petroleum (East China), Qingdao, Shandong** Sep. 2017– Jun. 2020
M. Eng. in Electronics and Communication Engineering
Supervisor Professor Weifeng Liu

**Linyi University, Linyi, Shandong** Sep. 2013– Jun. 2017
B. Eng. in Communication Engineering

## RESEARCH INTERESTS

Graph theory based cross-modal retrieval

Graph Representation Learning/Graph convolution networks

Machine Learning/Deep Learning

## POSTGRADUATE HONORS AND AWARDS

Doctor Academic Scholarship of Huazhong University of Science and Technology, 2020

Outstanding Master's Thesis of China University of Petroleum (East China), 2020

Outstanding Graduates of Shandong Province, 2020

First Prize of Professional Degree Postgraduate Outstanding Achievement Award of Shandong Province, 2019

China National Scholarship, 2019

First Prize of Academic Scholarship, 2019

Top Ten Postgraduate on Academic (Award Nomination) of China University of Petroleum (East China), 2019

Outstanding Students of China University of Petroleum (East China), 2019

Academic Star of College of Oceangraphy and Space Informatics of China University of Petroleum (East China), 2019

Third Prize of Academic Scholarship, 2017

## PUBLICATIONS

### Journal papers

1. Sichao Fu, Weifeng Liu, Kai Zhang and Yicong Zhou, "Example-Feature Graph Convolutional Networks for Semi-supervised Classification", *Neurocomputing*, Under Review. (JCR: Q1; Impact factor: 4.438; CCF C)
2. Sichao Fu, Weifeng Liu, Kai Zhang, Yicong Zhou and Dapeng Tao, "Semi-supervised Learning Using Graph $p$-Laplacian Convolutional Networks", *Information Sciences*, Under Review. (JCR: Q1; Impact factor: 5.91; CCF B)
3. Weifeng Liu (supervisor), Sichao Fu, Yicong Zhou, Zheng-Jun Zha and Liqiang Nie, "Human Activity Recognition by Manifold Regularization Based Dynamic Graph Convolutional Networks", *Neurocomputing*, accepted, 2020. (JCR: Q1; Impact factor: 4.438; CCF C)
4. Sichao Fu Weifeng Liu, Weili Guan, Yicong Zhou, Dapeng Tao and Changsheng Xu, "Dynamic Graph Learning Convolutional Networks for Semi-supervised Classification", *ACM Transactions on Multimedia Computing, Communications and Applications*, accepted, 2020. (JCR: Q1; Impact factor: 3.275; CCF B)
5. Sichao Fu, Weifeng Liu, Dapeng Tao, Yicong Zhou and Liqiang Nie, "HesGCN: Hessian Graph Convolutional Networks for Semi-Supervised Classification, *Information Sciences*, vol. 514, pp. 484-498, 2020. (JCR: Q1; Impact factor: 5.91; CCF B)
6. Sichao Fu, Weifeng Liu, Yicong Zhou and Liqiang Nie, "HpLapGCN: Hypergraph p-Laplacian Graph Convolutional Networks", *Neurocomputing*, vol. 362, pp. 166-174, 2019. (JCR: Q1; Impact factor: 4.438; CCF C)
7. Sichao Fu, Weifeng Liu, Shuying Li and Yicong Zhou, "Two-Order Graph Convolutional Networks for Semi-Supervised Classification", *IET Image Processing*, vol. 13, no. 14, pp. 2763-2771, 2019. (JCR: Q3; Impact factor: 1.995; CCF C)

### Conference papers

8. Sichao Fu, Weifeng Liu, Yicong Zhou, Zheng-Jun Zha and Liqiang Nie, "Dynamic Graph Convolutional Networks by Manifold Regularization", *2019 IJCAI Workshop on Deep Learning for Human Activity Recognition (IJCAIW 2019)*, Macao, China, 2019.
9. Sichao Fu, Xinghao Yang and Weifeng Liu, "The Comparison of Different Graph Convolutional Neural Networks for Image Recognition", *2018 International Conference on Internet Multimedia Computing and Service (ICIMCS 2018)*, Nanjing, China, 2018.

### Book Chapters

10. Sichao Fu and Weifeng Liu, "Recent Advances of Manifold based Graph Convolutional Networks for Remote Sensing Images Recognition" in *Generalization with Deep Learning: For Improvement on Sensing Capability*, World Scientific, Book edited by: Dr. Li Xiaoli, Dr. Chen Zhenghua and Dr. Wu Min, accepted, 2020.

## CHINA PATENTS

1. **Semi-supervised Classification Method based on Hypergraph $p$-Laplacian Graph Convolutional Neural Networks**

· First Applicant
· Patent for Invention
· Open Number: CN109766935A
· Open Date: 17 May, 2019

2. **Semi-supervised Classification Method based on $p$-Laplacian Graph Convolutional Neural Networks**

· First Applicant
· Patent for Invention
· Open Number: CN109583519A
· Open Date: 5 April, 2019

## PROJECT

### Under Study

1. Research on the Efficient Local Geometry Preserving Methods of Graph Representation Learning and its Modeling Analysis
· Student First Project Leader
· Funded by: Open Project Program of the National Laboratory of Pattern Recognition (NLPR).
· Grant Number: 202000009.
· Jan. 2020 - Dec. 2021
2. Research on Data Representation Learning Theory and Method based on Graph Neural Networks
· Student First Project Leader
· Funded by: Key Laboratory of Complex Systems Modeling and Simulation, Ministry of Education.
· Jan. 2019 - Dec. 2020
3. Research on Person re-identification Algorithms based on Metric Learning
· Project Member
· Funded by: Postgraduate Innovation Project, China University of Petroleum (East China).
· Grant Number: YCX2018064.
· May 2018 - Dec. 2019
4. Research on Theory and Method of Large-scale Data Deep Structure Learning
· Project Member
· Funded by: Independent Innovation Research Project, China University of Petroleum (East China).
· Grant Number: 18CX07011A.
· Jan. 2018 - Dec. 2020
5. Image Annotation based on Mult-iview Depth Sparse Coding and Manifold Regularization
· Project Member
· Funded by: National Natural Science Foundation of China.
· Grant Number: 61671480.
· Jan. 2017 - Dec. 2020

### Study Complete

1. Research on Semi-supervised Classification Method based on Graph Neural Networks
· Project Leader
· Funded by: Postgraduate Innovation Project, China University of Petroleum (East China).
· Grant Number: YCX2019080.
· May. 2019 - May. 2020
· Study Complete

## ACADEMIC ACTIVITIES

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|---|---|
| **Ad-hoc reviewer** | "IEEE Transactions on Neural Networks and Learning Systems" |
| | "IEEE Transactions on Cybernetics" |
| | "IEEE Transactions on Circuits and Systems for Video Technology" |
| | "IEEE Transactions on Geoscience and Remote Sensing" |
| | "IEEE Transactions on Emerging Topics in Computational Intelligence" |
| | "IEEE Access" |
| | "Neural Networks" |
| | "Information Sciences" |
| | "Neurocomputing" |
| | "Pattern Recognition" |
| | "Artificial Intelligence in Medicine " |
| | "Neural Processing Letters" |
| | "Multimedia Tools and Applications " |
| | "Pattern Analysis and Applications " |
| | "Journal of Applied Remote Sensing " |
| | "IET Computer Vision " |
| | "Journal of Healthcare Engineering " |
| | "Signal, Image and Video Processing" |
| | "International Joint Conference on Artificial Intelligence" |
| | "International Conference on Information and Knowledge Managemen" |
| | "International Conference on Multimedia and Expo" |
| | "International Conference on Systems, Man, and Cybernetics" |
| | "International Conference on Machine Learning, Optimization, and Data Science" |
| | "Asian Conference on Pattern Recognition" |
| | "Chinese Conference on Pattern Recognition and Computer Vision" |
| | "ACM International Conference on Multimedia" |
| **Attended conference** | "2019 International Joint Conference on Artificial Intelligence" |
| | "2018 International Conference on Internet Multimedia Computing and Service" |