Update in Sep 8th, 2022

Guoming Li

: Institute of Automation, Chinese Academy of Sciences, No.95, ZhongGuanCun East Road, HaiDian, Beijing, China	: PaskardLi@outlook.com or paskardlgm@163.com
: https://vasile-paskardlgm.github.io/	: +8613602483097

Research Interests

- Deep Learning on Graph and its application on real-world
- Graph Signal Processing and Denoising
- Graph Topology Inference

Education Background

B.Eng in Information Engineering, *South China University of Technology*, China *Sep 2016 – Jun 2020*

- Thesis: Deep learning method in Super-Resolution
- GPA: 3.43 / 4.0 (Top Rank 30% of 253 students, ***Merit Graduate Student Awards***)
- Selected Courses: Data Structure(88), Basic Theory of Information(88), Electromagnetic Fields and Waves(91), Signal and System, Digital Signal Processing, Digital Image Processing

Postgrad Courses study, *University of Chinese Academy of Sciences*, China *Sep 2021 - Jul 2022*

- Major: Social Computing (AI + Network Science)
- GPA: 3.57 / 4.0 (One-year courses, all about AI and Applied Maths)
- Selected Courses: Multivariate Statistical Analysis(93), Funtional Analysis(95), Machine Learning, Deep Learning, Pattern Recognition

Project(new to old)

Network Topology Inference with Graph Learning *Jun 2022 – present*

- Mentor: Prof D.S Luo at Florida International University(FIU), USA
- This topic is just one of the sub-problems of my big idea adout Graph Signal Processing. I proposed the main idea and designed the model. I am now cooperating with Prof. Luo and concentrated on solve this sub-problem.

Network epidemic dynamic model of COVID-19 in China *Dec 2020 – Jul 2021*

- Mentor: Prof Z Cao at CASIA, China
- Modeling the network epidemic processes of COVID-19 in China. Using Matlab to implement SEIR、SIR、SEIRD models which fitted the epidemic data in China and building mobility dataset with Python-Spider.

Deep learning method in Super-Resolution *Nov 2019 – May 2020*

- Mentor: Prof J.L Shi at South China University of Technology(SCUT), China
- This is my undergraduate thesis. I tried to find out what and how the factors in input-data influence the efficiency of the algorithm based on paper *Image super-resolution using deep convolutional networks.* (Dong et al, 2016)

Image style transfer apps (for mobile device) *Mar 2019 – Jul 2019*

- Co-workers: D Wang, K.B Chen at South China University of Technology(SCUT), China

Update in Sep 8th, 2022

- All deep learning modules were implemented by myself. MS-COCO dataset and VGG-14 backbone were used to train the model and got different Style Gram Matrices, which could be used to image style transfer at our online server. **However, our online server had been terminated now.**

■ Research Experience(new to old)

(Remote) research internship in Florida International University(FIU) *Jun 2022 – present*

- Mentor: Prof D.S Luo at Florida International University(FIU), USA
- Topic: Graph Topology Inference and Graph Signal Denoising
- Proposing the idea and leading the research project. Now focusing on a sub-question about bridging the gap between GTI(Graph Topology Inference) and GSL(Graph Structure Learning). My goal is to solve a problem about denoising on both Graph Structure and Graph Signal at the same time.

Research Assistant in Institute of Automation, Chinese Academy of Sciences(CASIA) *Dec 2020 – Jul 2021*

- Mentor: Prof Z Cao at CASIA, China
- Topic: Epidemic dynamic of COVID-19 and (Complex) Network Science
- Extracting spatial-temporal data of COVID-19 and creating a dataset with Python-Spider, independently using Matlab to implement SEIR、SIR、SEIRD models which fitted the epidemic data in China.

Student Research Assistant in Image Processing Group(SCUT) *Mar 2018 – Nov 2018*

- Mentor: Prof X Xing at South China University of Technology(SCUT), China
- Topic: Image processing with deep learning
- Required to implement some papers about Image processing with Pytorch, such as *AdaIN* (Huang et al, 2017), and compare their performance in MS-COCO dataset, also required to do the data pre-processing.

■ Research Publications

- No publication at present.

■ Coding Skills

- Python, *(Proficient in using Pytorch, Spider and so on.)*
- C++, *(Proficient)*
- Matlab, *(Proficient)*

■ Adwards

- The Chinese Mathematics Competitions, ***The third prize***, *2017,* ***The second prize***, *2018*
- Contemporary Undergraduate Mathematical Contest in Modeling, ***The third prize***, *2018*
- "Hong-ping-chang-qing" ——Student science and technology innovation competition scholarship, ***The third prize***, *2019*

■ Social Activities

- The 2019 GUANGZHOU International Marathon, Volunteer, *2019*
- The 2022 CHINA AUTOMATION CONGRESS, Volunteer, *2022*

■ Referees

I am grateful and proud to be recommended by the following people:

Update in Sep 8th, 2022

1.
Jinglun Shi, Ph.D,
Professor,
School of Electronic and Information Engineering,
South China University of Technology,
Wushan, Guangzhou, China, 510641
Email: shijl@scut.edu.cn

2.
Gang Meng, Ph.D,
Associate Professor,
School of Mathematical Sciences,
University of Chinese Academy of Sciences,
No.19, Yuquan road, Shijingshan district, Beijing,
China, 100049
Email: menggang@ucas.ac.cn

3.
Dongsheng Luo, Ph.D,
Assistant Professor,
Knight Foundation School of Computing and
Information Sciences,
Florida International University,
Office: CASE 212 B,
Email: dluo@fiu.edu

4.
Zhidong Cao, Ph.D,
Associate Professor,
Institute of Automation,
Chinese Academy of Sciences,
N0.80, Zhongguancun-east road, haidian district,
Beijing, China, 100049
Email: zhidong.cao@ia.ac.cn