

Yujun Shi

PERSONAL DETAILS

Github: <https://github.com/Yujun-Shi>
Personal Mail: shiyujun1016@gmail.com

School Mail: shi.yujun@u.nus.edu

EXPERIENCE

Nankai University, Tianjin, China Sep 2015 - Jun 2019
B.S. in Compute Science
Cumulative GPA: 92.14/100, Rank: 1/93

Tencent, Shenzhen, China Dec 2018 - Aug 2019
Research Intern
Research Topic: Adversarial Robustness

National University of Singapore, Singapore Aug 2019 - Nov 2020
Research Assistant
Research Topic: Model Interpretability/Continual Learning

National University of Singapore, Singapore Jan 2021 -
Ph.D in Machine Learning
Research Topic: Continual Learning

HONORS AND AWARDS

National Scholarship Award (2016)
Nankai First Class Scholarship Award (2017, 2018)
Outstanding Award in Tianjin Math Contest for College Students (2016)
4-th place in MineRL@NeurIPS2019 competition (2019)

PAPER LIST

- Li Yuan, Yunpeng Chen, Tao Wang, Weihao Yu, **Yujun Shi**, Zihang Jiang, Francis EH Tay, Jiashi Feng, Shuicheng Yan. Tokens-to-Token ViT: Training Vision Transformers from Scratch on ImageNet. (**ICCV 2021**)
- Yujun Shi**, Li Yuan, Yunpeng Chen, Jiashi Feng. Continual Learning via Bit-Level Information Preserving. (**CVPR2021**).
- Yun Liu, Yuhuan Wu, Peisong Wen, **Yujun Shi**, Ming-Ming Cheng. Leveraging Instance-, Image- and Dataset-Level Information for Weakly Supervised Instance Segmentation. IEEE Transactions on Pattern Analysis and Machine Intelligence; (**TPAMI**).
- Yujun Shi**, Benben Liao, Guangyong Chen, Yun Liu, Ming-Ming Cheng, Jiashi Feng. Understanding Adversarial Behavior of DNNs by Disentangling Non-Robust and Robust Components in Performance Metric. (<https://arxiv.org/abs/1906.02494>)
- Guangyong Chen, Pengfei Chen, **Yujun Shi**, Chang-Yu Hsieh, Benben Liao, Shengyu Zhang. Rethinking the usage of batch normalization and dropout in the training of deep neural networks. (<https://arxiv.org/abs/1905.05928>)

RESEARCH

Media Computing Lab in Nankai University

Group Homepage: <https://mmcheng.net/>

Time Span: September 2017 - June 2018

Advisor: **Prof. Ming-Ming Cheng** (<https://mmcheng.net/cmm/>)

Research Experience:

- Contributed the module hfs to OpenCV.
module link: https://github.com/opencv/opencv_contrib/tree/master/modules/hfs

Tencent Quantum Lab

Time Span: December 2018 - August 2019

Advisor: **Dr. Benben Liao** (<https://sites.google.com/site/webpageliaob/>)

Research Experience:

- I completed the project “Understanding Adversarial Behavior of DNNs by Disentangling Non-Robust and Robust Components in Performance Metric”. In this project, we theoretically characterized the relation between standard performance and adversarial robustness of the deep neural networks and empirically validated our theory.
arxiv link: <https://arxiv.org/abs/1906.02494>

Learning & Vision Lab in National University of Singapore

Group Homepage: <https://www.ece.nus.edu.sg/lv/people.html>

Time Span: July 2018 - December 2018

Advisor: **Dr. Jiashi Feng** (<https://sites.google.com/site/jshfeng/home>)

Research Experience:

- Doing survey in the topic of deep learning on non-euclidean data and trying to apply graph convolution in the task of semantic segmentation.

Time Span: August 2019 - now

Research Experience:

- Our team won 4th place in MineRL@NeurIPS2019 competition
(leadboard: <https://www.aicrowd.com/challenges/neurips-2019-minerl-competition/leaderboards>).
- We propose a novel continual learning algorithm called Bit-Level Information Preserving (BLIP) from information theory perspective. This continual learning method can achieve close-to-zero forgetting in a memory efficient way. **Accepted by CVPR2021.**

ENGLISH SCORES

IELTS: 7.5(overall) 8.0(reading) 8.5(listening) 7.0(speaking) 7.0(writing)

Toefl: 105

GRE: 321(verbal and reasoning) + 4(writing)

PROJECTS

Software Secondary Development (Based on ArchiCAD Platform) in the Design of Underground Pipe Gallery.

Time span: September 2016 - November 2016.

I cooperated with engineers from *North China Municipal Engineering Design & Research Institute Co. Ltd (NCMEDRI)* to develop an add-on for a CAD for architects called ArchiCAD.

Programming language: C++.

SKILLS

- Programming languages: C++/C(CUDA), Python, Matlab, Java
- Packages: Pytorch, TensorFlow, Caffe, Caffe2, OpenCV