Yu Pan

HIT Campus of University Town of Shenzhen, Shenzhen, China
iperryuu@gmail.com https://yupan.me (+86) 13980449598

EDUCATION

Harbin Institute of Technology, Shenzhen *Feb. 2021 - Present*
Ph.D. Candidate in Computer Science and Technology

University of Electronic Science and Technology of China *Sept. 2017 - June 2020*
M.E. in Computer Science and Technology

University of Electronic Science and Technology of China *Sept. 2013 - June 2017*
B.E. in Automation

RESEARCH EXPERIENCE

Statistical Machine Intelligence Learning Laboratory, HITSZ, Shenzhen *Sept. 2017 - Present*

- Adviser: Prof. Zenglin Xu
- Focus: Deep Neural Networks, Tensor Decomposition
- **Project**: Investigating combinations of tensor decomposition technique and deep neural networks on a variety of aspects, including model compression, training strategy, etc.

Speech and Semantics Laboratory, Huawei Noah's Ark Lab, Shenzhen *April 2022 - Present*

- Adviser: Dr. Lifeng Shang & Dr. Yichun Yin
- Focus: LLM Models, Training Efficiency
- **Project**: Researching on the mechanism for accelerating training process of LLM models.

Computer Vision Center, Tencent AI Lab, Shenzhen *July 2019 - Oct. 2019*

- Adviser: Prof. Baoyuan Wu & Dr. Yong Zhang
- Focus: Adversarial Example, Pruning
- **Project**: Exploring an efficient pruning method to improve the robustness of deep neural networks, mainly on defending adversarial examples.

PUBLICATIONS (∗ **represents equal contribution**)

- **Yu Pan**, Ye Yuan, Yichun Yin, Zenglin Xu, Lifeng Shang, Xin Jiang, and Qun Liu. *"Reusing Pretrained Models by Multi-linear Operators for Efficient Training"*. NeurIPS, 2023.
- **Yu Pan**, Zeyong Su, Ao Liu, Jingquan Wang, Nannan Li, and Zenglin Xu. *"A Unified Weight Initialization Paradigm for Tensorial Convolutional Neural Networks"*. ICML, 2022.
- **Yu Pan**, Jing Xu, Maolin Wang, Jinmian Ye, Fei Wang, Kun Bai, and Zenglin Xu. *"Compressing Recurrent Neural Networks with Tensor Ring for Action Recognition"*. AAAI, 2019.
- **Yu Pan**, Maolin Wang, and Zenglin Xu. *"TedNet: A Pytorch Toolkit for Tensor Decomposition Networks"*. Neurocomputing, 2022.
- **Yu Pan**∗, Nannan Li∗, Yaran Chen, Zixiang Ding, Dongbin Zhao, and Zenglin Xu. *"Heuristic Rank Selection with Progressively Searching Tensor Ring Network"*. Complex & Intelligent Systems, 2021.

- Jing Xu, **Yu Pan**, Xinglin Pan, Kun Bai, Steven Hoi, Zhang Yi, and Zenglin Xu. *"RegNet: Self-Regulated Network for Image Classification"*. TNNLS, 2022.
- Jingquan Wang, Jing Xu, **Yu Pan**, and Zenglin Xu. *"Semantically Proportional Patchmix for Few-Shot Learning"*. ICASSP, 2022.
- Xinglin Pan, Jing Xu, **Yu Pan**, and Zenglin Xu. *"AFINets: Attentive Feature Integration Networks for Image Classification"*. Neural Networks, 2022.
- Maolin Wang, Chenbin Zhang, **Yu Pan**, Jing Xu, and Zenglin Xu. *"Tensor Ring Restricted Boltzmann Machines"*. IJCNN, 2019.
- Maolin Wang, Zeyong Su, Xu Luo, **Yu Pan**, Shenggen Zheng, and Zenglin Xu. *"Concatenated Tensor Networks for Deep Multi-Task Learning"*. ICONIP, 2020.

In Process

- **Yu Pan**, Chaozheng Wang, Zekai Wu, Qifan Wang, Min Zhang, and Zenglin Xu. *"Preserving Identity for Fast and Stable Training of Deep Neural Networks"*. Submitting in ICLR, 2024.
- **Yu Pan**, Ye Yuan, Yichun Yin, Jiaxin Shi, Zenglin Xu, Ming Zhang, Lifeng Shang, Xin Jiang, and Qun Liu. *"Preparing Lessons for Progressive Training on Language Models"*. Submitting in AAAI, 2024.
- **Yu Pan***, Maolin Wang*, Zenglin Xu, Xiangli Yang, Guangxi Li, and Andrzej Cichocki. *"Tensor Networks Meet Neural Networks: A Survey and Future Perspectives"*. Submitting for TPAMI, 2024.
- Dun Zeng, Zenglin Xu, **Yu Pan**, Xu Luo, and Xiaoying Tang. *"Sampling Procedure Matters in Federated Learning: Independent Client Sampling with Bandit Feedback"*. Submitting in ICLR, 2024.
- Dun Zeng, Zenglin Xu, **Yu Pan**, Qifan Wang, and Xiaoying Tang. *"Tackling Hybrid Heterogeneity on Federated Optimization via Gradient Diversity Maximization"*. Submitting in AAAI, 2024.

SERVICE

- Reviewer of ICML 2021-2023, NeurIPS 2020-2023, ICLR 2022-2024.

RESEARCH ACTIVITIES

- Published several Python packages and an image annotation tool.
- Attended AAAI 2019 Conference at Hawaii in 2019.
- Attended short-term communication in Japan in 2016.

AWARDS & SCHOLARSHIPS

- The Outstanding Graduate Thesis Award, UESTC. 2020
- The Outstanding Graduate Award, UESTC. 2020
- The Excellence in Student Award, UESTC. 2018-2019
- The Major Academic Scholarship for Graduate Students, UESTC. 2018-2019
- The Outstanding Undergraduate Thesis Award, UESTC. 2017