XIASI WANG

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EDUCATION

The Hong Kong University of Science and Technology Hong Kong SAR
Ph.D. in Data Science and Analytics 2020.09 – 2024.06
Research interests: Machine Learning, Pretrained Model and Parameter Efficient Tuning

University of Science and Technology of China Hefei, China
B.S. in Statistics 2016.09 – 2020.06
Honors: Outstanding Graduate Award, Outstanding Undergraduate Scholarship (all three years)

EXPERIENCE

Noah's Ark Lab, Huawei Technologies Co., Ltd Shenzhen, China
Artificial Intelligence Researcher Intern 2022.04 – 2023.04

- Focused on self-supervised learning and researched the multi-view perspective of self-supervised learning in computer vision area
- Refined multi-view information bottleneck; developed the multi-view entropy bottleneck method to obtain the minimal sufficient representation with better performance
- Conducted empirical studies to explore the behaviors of MVEB; validated the superiority of MVEB on ImageNet classification linear evaluation protocol (76.9% top-1 acc. with ResNet-50 backbone, so for the best) and extensive downstream tasks including transfer learning and object detection
- **Manuscript**: MVEB: Self-Supervised Learning with Multi-View Entropy Bottleneck, 2022

PROJECTS

The Hong Kong University of Science and Technology Hong Kong SAR
Negatives Selection for Contrastive Learning 2021.12 – 2022.04

- Researched the selection criterion of negative samples in contrastive learning
- Used quantitative analysis to find that the semi-hard negatives play an important role in contrastive learning since easy negatives provide negligible contrastive gradients and hard negatives suffer from the false negative problem; discovered an exponential decaying relation of hardness vs. false rate
- Proposed a hardness-aware debiasing method based on the observed relation to mitigate the side effect of false negatives; achieved an improvement of 2%-3% top-1 acc. on Cifar-10/100

University of Science and Technology of China Hefei, China
Systemic Risk Contagion of Financial Network 2019.07 – 2020.01

- Learned a risk contagion model for financial networks which triggers the contagion before default
- Replicated the risk contagion model using R; collected the data of chinese commercial bank network to empirically study the financial risk contagion model
- Explored the model's sensitivity to its parameters
- **Publication**: Solvency Contagion Risk in the Chinese Commercial Bank Network, *Physica A*, 2021

COMPUTATIONAL SKILLS & OTHERS

Programming Languages	Python (Numpy, Pandas, Matplotlib), R, Linux (basic)
Softwares & Tools	LaTeX, Microsoft Office
Languages	Mandarin, English
Other Technical Skills	Deep Learning (Pytorch)