XIASI WANG

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EDUCATION

The Hong Kong University of Science and Technology Ph.D. in IIP (Data Science and Analytics) Hong Kong SAR 2020.09 – 2024.06

Research interests: Machine Learning, Representation Learning

University of Science and Technology of China

Hefei, China

B.S. in Statistics 2016.09 – 2020.06

Honors: Outstanding Graduate Award (2020), Outstanding Undergraduate Scholarship (2017-2019)

INTERNSHIP

Noah's Ark Lab, Huawei Technologies Co., Ltd Artificial Intelligence Researcher Intern

Shenzhen, China 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 by developing novel 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 far 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 Negatives Selection for Contrastive Learning

Hong Kong SAR 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; disclosed 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 classification

University of Science and Technology of China Systemic Risk Contagion of Financial Network

Hefei, China 2019.07 – 2020.01

- Investigated a risk contagion model for financial networks which triggers the contagion before default
- Replicated the risk contagion model using R language; 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)

LanguagesMandarin, EnglishTechnical SkillsDeep Learning (Pytorch)

Leadership Students' Union of School of Management, USTC (Vice President)