Binghua LI

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Personal Information

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Short Biography

I am a post-graduate student graduated from College of Artificial Intelligence, Nankai University, China, instructed by Professor Feng Duan. As a research intern, I have spent half a year at RIKEN AIP, researching on Tensor Decomposition in Tensor Learning Team led by Prof. Qibin Zhao. I have spent one and a half year in OPPO company, serving as an algorithm engineer. Currently, I am pursuing a doctoral degree in Tokyo University of Agriculture and Technology (TUAT), instructed by Professor Tanaka Toshihisa.

Research Area

- Tensor Decomposition
- Large-scale Model Pretrianing
- Interpretable Model for Medical Data Analysis

Experiences

4. Ph.D in Graduate School of Engineering, Tokyo University of Agriculture and Technology.	$2023.4 \sim now$
3. Algorithm Engineer in Department of Xiaobu Intelligent Center, OPPO Company.	$2021.7 \sim 2023.2$
2. M.S. in College of Artificial Intelligence, Nankai University.	$2018.9 \sim 2021.6$
1. B.S. in College of Control Science and Engineering.	$2013.9 \sim 2017.6$

Publications

2024

7. Binghua Li, Jie Mao, Zhe Sun, Chao Li, Qibin Zhao, Toshihisa Tanaka. MAProtoNet: A Multi-scale Attentive Interpretable Prototypical Part Network for 3D Magnetic Resonance Imaging Brain Tumor Classification. arXiv preprint arXiv:2404.08917, 2024.

2022

6. Xuning Chen, Binghua Li, Hao Jia, Fan Feng, Feng Duan, Zhe Sun, Cesar F. Caiafa, Jordi Solé-Casals. Graph Empirical Mode Decomposition Based Data Augmentation for Gifted Children MRI Dataset Analysis. Frontiers in Neuroscience, 2022, 16: 866735.

2021

5. Gan Liu, Ying Tan, Wenchuan Kuang, Lingfeng Chen, Binghua Li, Feng Duan, Chi Zhu. The Development of a UAV Target Tracking System Based on YOLOv3-Tiny Object Detection Algorithm. 2021 IEEE International Conference on Robotics and Biomimetics (ROBIO 2021). IEEE, 2021: 1636-1641.

4. Binghua Li, Zhiwen Zhang, Feng Duana, Zhenglu Yang, Qibin Zhao, Zhe Sun, Jordi Solé-Casals. Component-mixing Strategy: A Decomposition-based Data Augmentation Algorithm for Motor Imagery Signals. Neurocomputing, 2021, 465: 325-335.

2020

3. Zhe Sun, Binghua Li, Feng Duan, Hao Jia, Shan Wang, Yu Liu, Andrzej Cichocki, Cesar F. Caiafa, Jordi Solé-Casals. WLnet: Towards an Approach for Robust Workload Estimation Based on Shallow Neural Networks. IEEE Access, 2020, 9: 3165-3173.

2. Binghua Li, Chao Li, Feng Duan, Ning Zheng and Qibin Zhao. TPFN: Applying Outer Product Along Time to Multimodal Sentiment Analysis Fusion on Incomplete Data. 16th European Conference on Computer Vision (ECCV 2020). Springer International Publishing, 2020: 431-447.

1. Xuyang Zhao, Jordi Solé-Casals, Binghua Li, Zihao Huang, Andong Wang, Jianting Cao, Qibin Zhao. Classification of Epileptic IEEG Signals by CNN and Data Augmentation. 2020 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2020). IEEE, 2020: 926-930.

Patents

3. Binghua Li, Cong Wang, Xin Li. Model training method, image-text data processing device, image-text data processing equipment and image-text data processing medium: CN202211190883. 2022-09-28.

2. Binghua Li. Keyword extraction method and device and electronic equipment: CN202210303599. 2022-03-24.

1. Feng Duan, Peng Xing, Binghua Li. Elastic EEG acquisition device: CN201930447772. 2019-08-16.

Honors and Awards

6. Adward of Excellent Individual in Department of Xiaobu Intelligent Center (OPPO)
5. Certificate of completion of Short-term IPA in RIKEN (Master)
4. Nankai University 2019 third scholarship (Master)
3. Nankai University 2018 third scholarship (Master)
2. Certificate of achievement of SAKURA Exchange Program in Science (Master)
1. Nankai University 2014 ∼ 2015 'GongNeng' scholarship (Undergraduate)