Jingjing Zheng

CONTACT INFORMATION

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RESEARCH INTERESTS

Machine learning, computer vision, pattern recognition and their applications.

EDUCATION

Department of Computer Science, Memorial University of Newfoundland, St.john's NL, Canada

Ubiquitous Computing and Machine Learning Research, Cummulative GPA: 4.00/4.00
- Supervisors: Dr. Xianta Jiang, Dr. Xiaoqin Zhang and Dr. Yuanzhu Chen

College of Mathematics and Physics, Wenzhou University, Zhejiang, P. R. China

M.S., Applied Mathematics, Grades: 89.84/100, June 2020
- Dissertation: "Low rank recovery based on L_0 norm non-convex surrogate methods and its application"
- Supervisor: Dr. Xiaoqin Zhang

College of Art Design, Wuchang Institute of Technology, Hubei, P. R. China

B.A., Environmental Art Design, June 2015
- Dissertation: "Portable design of residential unit is analysed"
- Advisor: Hao Cheng

AWARDS AND HONORS

- Mitacs Accelerate Award with Verafin, 2022.05
- MUN Outstanding reseach award (Ph.D.), 2022.03
- National Scholarship, China, 2019
- Outstanding Graduates of Zhejiang Province, China, 2019
- National Post-Graduate Mathematical Contest in Modeling, China (Second Prize, Team Leader), 2017
- National Post-Graduate Mathematical Contest in Modeling, China (Third Prize, Team Leader), 2018
- CISC Outstanding Paper Award, China, 2018
- Wenzhou Academic Scholarship, China (First Prize), 2019
- Wenzhou Academic Scholarship, China (First Prize), 2018

SECLETED PUBLICATIONS

Journal:

1. Xiaoqin Zhang, **Jingjing Zheng**, Di Wang, Guiying Tang, Zhengyuan Zhou, and Zhouchen Lin. Structured Sparsity Optimization with Non-Convex Surrogates: A Unified Algorithmic Framework. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 2020. (major revision)
2. **Jingjing Zheng**, Wenzhe Wang, Xiaoqin Zhang*, Xianta Jiang. Fast Tensor Completion with Non-Convex Surrogates for Large-Scale Data, *IEEE Transactions on IEEE Transactions on Neural Networks and Learning Systems.* (under review)
3. Xiaoqin Zhang, **Jingjing Zheng**, Li Zhao, Zhengyuan Zhou, Zhouchen Lin. Tensor Recovery with Weighted Tensor Average Rank. *IEEE Transactions on Neural Networks and Learning Systems*, 2021. (under review)

4. Shuo Wang, **Jingjing Zheng**, Bin Zheng, Xianta Jiang*. Phase-based Grasp Classification for Prosthetic Hand Control Using sEMG. *Biosensors*, 2022.
5. Xiaoqin Zhang, **Jingjing Zheng**, Di Wang and Li Zhao. Exemplar-based Denoising: A Unified Low-rank Recovery Framework. *IEEE Transactions on Circuits and Systems for Video Technology*, 2019,(99):1-1.
6. Xiaoqin Zhang, **Jingjing Zheng**, Yufang Yan, Li Zhao, Runhua Jiang. Joint Weighted Tensor Schatten p-norm and Tensor lp-norm Minimization for Image Denoising. *IEEE Access*, 2019.

Conference:

1. **Jingjing Zheng**, Xiaoqin Zhang*, Wenzhe Wang, Xianta Jiang. Handling Slice Permutations Variability in Tensor Recovery. *AAAI Conference on Artifical Intelligence*, 2022.
2. Xiaoju Lu, Guiying Tang, Di Wang, Xiaoqin Zhang and **Jingjing Zheng***. Structural Dictionary Learning based on Non-convex Surrogate of l2,1 Norm for Classification. *IEEE Conference on Big Data*, 2019:5056-5061.

Submitted Patents

1. Xiaoqin Zhang, **Jingjing Zheng**, Yufang Yan, Image Denoising Method Based on Novel Norm, Patent Number: 201810233460.7, Date of Application: 2018.03.21
2. Li Zhao, Xiaoqin Zhang, **Jingjing Zheng**, Wenzhe Wang, A Nonlocal Denosing Framework Based on Generalized Non-convex Tensor Robust Principal Component Analysis for Color Image and Video, Patent Number: CN202110010629.4, Date of Application: 2021.01.06

Grants

1. Science and Technology Innovation Program for College Students in Zhejiang Province, Image Classification Based on New Norm and Its Generalization, Jingjing Zheng (Principal Investigator), Xiaoju Lu, Guiying Tang, 2018-2020, fund: RMB ¥ 10,000.
2. Mitacs Accelerate Award with Verafin, Unsupervised Financial Fraud Detection Using Low-rank Recovery, $15000, 2022.5-2022.9

Reviewing Experience

- Abstract reviewer, the 2021 Aldrich conference

Teaching Experience

Teaching Assistant, Memorial University of Newfoundland, St.john's NL, Canada

- Computer Science 2002: Data Structures and Algorithms, Winter 2022

Professional Activities

Talks and Presentations:

- Handling Slice Permutations Variability in Tensor Recovery, AAAI Conference on Artificial Intelligence, 2022