# Yu Hu

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## EDUCATION

• South China University of Technology Ph.D. in Computer Science Supervisor: Prof. Hongmin Cai Thesis title: Robust Tensor Clustering for High-dimensional Data	Sept 2017 - Jun 2023
• China University of Mining and Technology B.E. in Electric Engineering and Automation	Sept 2013 - Jun 2017
WORK EXPERIENCE	
• The Hong Kong Polytechnic University Department of Health Technology and Informatics Position: Postdoctoral Fellow	Apr 2024 - Present
• PazhouLab Guangdong Artificial Intelligence and Digital Economy Laboratory (Guangzhou) Position: Research Associate	Jul 2023 - Mar 2024 )

#### **RESEARCH INTERESTS**

- High-dimensional Data Mining;
- Multi-source Data Fusion;
- Tensor-based Unsupervised Learning;
- Medical Image Analysis.

#### SELECTED PUBLICATIONS

- [TNNLS] Y. Hu, F. Qi, Y. Cheung, and H. Cai, "Discriminating Tensor Spectral Clustering for Highdimension-low-sample-size Data," in *IEEE Transactions on Neural Networks and Learning Systems*, in press.
- [TKDE] Y. Hu, E. Guo, Z. Xie, X. Liu, and H. Cai, "Robust Multi-view Clustering through Partition Integration on Stiefel Manifold," in *IEEE Transactions on Knowledge and Data Engineering*, doi: 10.1109/TKDE.2023.3253244.
- 8. [TPAMI] H. Cai, Y. Hu, F. Qi, B. Hu, and Y. Cheung, "Deep Tensor Spectral Clustering Network via Ensemble of Multiple Affinity Tensors," in *IEEE Transactions on Pattern Analysis and Machine*

Intelligence, in press, DOI: 10.1109/TPAMI.2024.3361912.

- [TPAMI] H. Peng, Y. Hu, J. Chen, H. Wang, Y. Li and H. Cai, "Integrating Tensor Similarity to Enhance Clustering Performance," in *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 44, no. 5, pp. 2582-2593, 1 May 2022, doi: 10.1109/TPAMI.2020.3040306.
- [TCYB] Z. Zhou, Y. Hu, Y. Zhang, J. Chen, and H. Cai, "Multi-view Deep Graph Infomax to Achieve Unsupervised Graph Embedding," in *IEEE Transactions on Cybernetics*, vol. 53, no. 10, pp. 6329-6339, Oct. 2023, doi: 10.1109/TCYB.2022.3163721.
- [ICME] Y. Hu and H. Cai, "Multi-View Clustering Through Hypergraphs Integration on Stiefel Manifold," 2022 IEEE International Conference on Multimedia and Expo (ICME), Taipei, Taiwan, 2022, pp. 01-06, doi: 10.1109/ICME52920.2022.9859633. Selected as Oral Paper (Top 22.9%)
- 4. [SPL] Z. Chen, Y. Huang, Y. Hu, and Z. Chen, "Phase Recovery With Deep Complex-Domain Priors," in *IEEE Signal Processing Letters*, vol. 29, pp. 887-891, 2022, doi: 10.1109/LSP.2022.3160927.
- 3. [PR] H Peng, H Wang, Y. Hu, W Zhou, and H Cai, "Multi-dimensional Clustering through Fusion of High-order Similarities," in *Pattern Recognition*, vol. 121, p. 108108, 2022.
- [MIA] G Tao, H Li, J Huang, C Han, J Chen, G Ruan, W Huang, Y. Hu, T Dan, B Zhang, S He, L Liu, and H Cai, "SeqSeg: A sequential method to achieve nasopharyngeal carcinoma segmentation free from background dominance," in *Medical Image Analysis*, vol. 78, p. 102381, 2022.
- [TCYB] B Zhang, H Cai, J Chen, Y. Hu, J Huang, W Rong, W Weng, Q Huang, H Wang, H Peng, "Fast and accurate clustering of multiple modality data via feature matching," in *IEEE Transactions* on Cybernetics, vol. 52, no. 6, pp. 5040-5050, June 2022, doi: 10.1109/TCYB.2020.3026396.

## PROFESSIONAL ACTIVITIES

• Reviewer for prestige journals including IEEE-TNNLS, IEEE-TKDE, IEEE-SPL, and Artificial Intelligence Review.

### AWARDS

•	• 1st Prize of Natural Science of Guangdong Artificial Intelligence Industry Association	Jan	2023
•	ICME'2022 Oral Paper	Jul	2022