Yuan Yao

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Education

Harbin Institute of Technology, China 2015.09 – 2021.04 (*Expected*)

Ph.D student in Computer Science and Technology; GPA: 3.27/4.0 ; Advisor: Prof. Yunming Ye

Northwest Minzu University, China 2011.09 – 2015.07

B.E. in Computer Science and Technology; Ranking: 1/79

Experience

Nanyang Technological University, Singapore 2019.10 – 2020.07

Visiting student; Advisor: Prof. Sinno Jialin Pan

Hong Kong University of Science and Technology, Hong Kong 2017.10 – 2018.04

Visiting research intern; Advisors: Prof. Qiang Yang, and Prof. Yu Zhang

Research Interests

- Heterogeneous transfer learning, multimodal learning, semi-supervised learning, and multi-label learning

$ Application Values

I mainly focus on **Heterogeneous Transfer Learning** (HTL), some important/potential applications of HTL are highlighted as follows:

- **Cross-lingual text categorization**: HTL technology can help improve the performance of minor-language (*e.g.*, Japanese) text categorization by borrowing the knowledge from major-language (*e.g.*, English) text.
- **Cross-modal recognition**: HTL technology can perform cross-modal recognition (*e.g.*, using image data to help recognize text one), which can mine more comprehensive knowledge than single-modal recognition.
- **Privacy protection** (hiding samples and sharing features): I believe that the extracted feature can help protect the privacy. As HTL technology can transfer knowledge across heterogeneous feature representations, which is a possible way for privacy protection.

I would like to use what I have learned to solve some practical problems, and make some achievements in industry.

Publications

- **Yuan Yao**, Yu Zhang, Xutao Li, and Yunming Ye. Heterogeneous Domain Adaptation via Soft Transfer Network. *Proceedings of the 27th ACM International Conference on Multimedia (ACM MM)*, 2019.
- **Yuan Yao**, Yu Zhang, Xutao Li, and Yunming Ye. Discriminative Distribution Alignment: A Unified Framework for Heterogeneous Domain Adaptation. *Pattern Recognition*, 2020.
- **Yuan Yao**, Xutao Li, Yunming Ye, Feng Liu, Michael K. Ng, Zhichao Huang, and Yu Zhang. Low Resolution Image Categorization via Heterogeneous Domain Adaptation. *Knowledge-Based Systems*, 2019.
- **Yuan Yao**, Yan Li, Xutao Li, and Yunming Ye. MLCE: An ensemble of decision cluster crotches for multi-label classification. *International Journal of Pattern Recognition and Artificial Intelligence*, 2020.
- **Yuan Yao**, Yan Li, Ke Wang, Zhichao Huang, and Yunming Ye. A Semi-supervised Clustering Method through Bottleneck Distance Exploration. *Proceedings of the 9th International Conference on Service Science (ICSS)*, 2016. (*Best Student Paper Award*)
- Zhichao Huang, Xutao Li, Yunming Ye, Feng Li, Feng Liu, and **Yuan Yao**. TLVANE: a two-level variation model for attributed network embedding. *Neural Computing and Applications*, 2020.

Technical Report

- **Yuan Yao**, Xutao Li, Yu Zhang, and Yunming Ye. Multi-source Heterogeneous Domain Adaptation with Conditional Weighting Adversarial Network. *Submitted to IEEE Transactions on Neural Networks and Learning Systems*.

Projects

- Research on clustering tree method for large-scale high-dimensional sparse data. 2013-2015
  I was mainly responsible for developing multi-label clustering tree method.
- National College Students' innovation and entrepreneurship training program: The development of multi-national calendar based on Android system. 2012-2013
  I was mainly responsible for software testing and project defense.

Technique Skills

- Programming Languages: Python, Tensorflow, JAVA, C, C++, Matlab, and Latex
- English: CET-6

Talk

- Introduction to heterogeneous transfer learning (*in Chinese*). ExtremeVision academic sharing. [video]

Selected Honors

- China Scholarship Council Scholarship 2019
- First-Class Scholarship - Harbin Institute of Technology 2015, 2016, 2017, 2018, 2019
- ICSS 2016 Best Student Paper Award 2016
- National Second prize - Contemporary Undergraduate Mathematical Contest in Modeling 2013
- National Third prize - Electrical Engineering Mathematical Contest in Modeling 2013
- National Scholarship 2013, 2014
- National Encouragement Scholarship 2012