Publications by research area

Optimal transport and its applications

1. [*NeurIPS 22*] Adaptive Distribution Calibration for Few-Shot Learning with Hierarchical Optimal Transport
   D. Guo, L. Tian, **H. Zhao**, M. Zhou, H. Zha
   link

2. [*NeurIPS 22*] Learning to Re-weight Examples with Optimal Transport for Imbalanced Classification
   D. Guo, Z. Li, M. Zheng, **H. Zhao**, M. Zhou, H. Zha
   link

3. [*ICLR 22*] Representing Mixtures of Word Embeddings with Mixtures of Topic Embeddings
   D. Wang, D. Guo, **H. Zhao**, H. Zheng, K. Tanwisuth, B. Chen, M. Zhou
   link, code

4. [*IJCAI Survey Track 21*] Optimal Transport for Deep Generative Models: State of the Art and Research Challenges
   V. Huynh, D. Phung, **H. Zhao**
   link

5. [*ICLR 21*] Neural Topic Model via Optimal Transport
   H. Zhao, D. Phung, V. Huynh, T. Le, W. Buntine
   International Conference on Learning Representation 2021
   Spotlight, link, code

6. [*NeurIPS 20*] OTLDA: A Geometry-aware Optimal Transport Approach for Topic Modeling
   V. Huynh, **H. Zhao**, D. Phung
   link

Machine learning robustness and generalisation

1. [*WACV 23*] Adversarial local distribution regularization for knowledge distillation
   T. Nguyen, T. Le, **H. Zhao**, J. Cai, D. Phung

2. [*NeurIPS 22*] Uncertainty Estimation for Multi-view Data: The Power of Seeing the Whole Picture
   M.C. Jung, **H. Zhao**, J. Dipnall, B, Gabbe, L. Du
   link

3. [*ICLR 22*] A Unified Wasserstein Distributional Robustness Framework for Adversarial Training
   A. Bui, T. Le, Q. Tran, **H. Zhao**, D. Phung
   link, code

4. [*AISTATS 22*] A Global Defense Approach via Adversarial Attack and Defense Risk Guaranteed Bounds
   T. Le, A. Bui, M.T.T. Le, **H. Zhao**, P. Montague, Q. Tran, D. Phung
   link

5. [*AISTATS 22*] Particle-based Adversarial Local Distribution Regularization
   T. Nguyen, T. Le, **H. Zhao**, J. Cai, D. Phung
   link

6. [*ISBI 22*] MED-TEX: Transfer and Explain Knowledge with Less Data from Pretrained Medical Imaging Models

T. Nguyen, **H. Zhao**, J. Cai, D. Phung
link

7. [*UAI 22*] MOST: Multi-Source Domain Adaptation via Optimal Transport for Student-Teacher Learning
T. Nguyen, T. Le, **H. Zhao**, Q. Tran, T. Nguyen, D. Phung
link, code

8. [*AAAI 21*] Improving Ensemble Robustness by Collaboratively Promoting and Demoting Adversarial Robustness
A. Bui, T. Le, **H. Zhao**, P. Montague, O. DeVel, T. Abraham, D. Phung
link, arxiv, code

9. [*ICPR 20*] Explain2Attack: Text Adversarial Attack with Cross-Domain Interpretability
M. Hossam, T. Le, **H. Zhao**, D. Phung
link, code

10. [*ECCV 20*] Improving Adversarial Robustness by Enforcing Local and Global Compactness
A. Bui, T. Le, **H. Zhao**, P. Montague, O. de Vel, T. Abraham, D. Phung
link, arxiv, code

(Deep) Bayesian factor analysis and topic modelling

1. [*EMNLP 22*] Neural Attention-Aware Hierarchical Topic Model
Y. Jin, **H. Zhao**, M. Liu, L. Du, W. Buntine
link

2. [*IJCAI Survey Track 21*] Topic Modelling Meets Deep Neural Networks: A Survey
H. Zhao, D. Phung, V. Huynh, Y. Jin, L. Du, W. Buntine
link, arxiv

3. [*AISTATS 20*] Variational Autoencoders for Sparse and Overdispersed Discrete Data
H. Zhao, P. Rai, L. Du, W. Buntine, D. Phung, M. Zhou
link, code

4. [*ACL 19* (short paper)] Leveraging Meta Information in Short Text Aggregation
H. Zhao, L. Du, G. Liu, W. Buntine
link), code

5. Leveraging External Information In Topic Modelling
H. Zhao, L. Du, W. Buntine, G. Liu
Knowledge and Information Systems 2019, invited extension from ICDM 17
link, code

6. Experiments with Learning Graphical Models on Text
J. Capdevila, **H. Zhao**, F. Petitjean, W. Buntine
Behaviormetrika 2018
link, data

7. [*NeurIPS 18*] Dirichlet Belief Networks for Topic Structure Learning
H. Zhao, L. Du, W. Buntine, M. Zhou
link, code

8. [*ICML 18*] Inter and Intra Topic Structure Learning with Word Embeddings
H. Zhao, L. Du, W. Buntine, M. Zhou
link, code

9. [*AISTATS 18*] Bayesian Multi-label Learning with Sparse Features and Labels, and Label Co-occurrences
H. Zhao, P. Rai, L. Du, W. Buntine
link, code

10. [*ACML 17*] A Word Embeddings Informed Focused Topic Model
H. Zhao, L. Du, W. Buntine
link, code

11. [*ICDM 17* (long paper)] MetaLDA: A Topic Model that Efficiently Incorporates Meta information
H. Zhao, L. Du, W. Buntine, G. Liu
link, arxiv, code

12. [*ICML 17*] Leveraging Node Attributes for Incomplete Relational Data
H. Zhao, L. Du, W. Buntine
link, code

Others

1. [*NAACL Findings 22*] A Label-Aware Autoregressive Framework for Cross-Domain NER
J. Hu, **H. Zhao**, D. Guo, X. Wan, T. Chang
link, code

2. [*SIGIR 20* (short paper)] Unsupervised Text Summarization with Sentence Graph Compression
J. Zhao, M. Liu, Y. Jin, L. Du, **H. Zhao**, H. Zhang, L. Gao, G. Haffari
link, arxiv, code

3. A New Method Based on PSR and EA-GMDH for Host Load Prediction in Cloud Computing System
Q. Yang, C. Peng, **H. Zhao**, Y. Yu, Y. Zhou, Z. Wang, S. Du
Journal of Supercomputing 2014
link

4. Social TV Analytics: A Novel Paradigm to Transform TV Watching Experience
H. Hu, J. Huang, **H. Zhao**, Y. Wen, C. Chen, T. Chua
ACM Multimedia Systems Conference 2014
link

5. Host load prediction based on PSR and EA-GMDH for cloud computing system
Q. Yang, C. Peng, Y. Yu, **H. Zhao**, Y. Zhou, Z. Wang, S. Du
International Conference on Cloud and Green Computing 2013
Best paper award, link