

Binhui Xie

Ph.D. Student, Beijing Institute of Technology
Address: Room 1106, Central Teaching Building, BIT

Homepage: binhuixie.github.io

Email : binhuixie@bit.edu.cn

Mobile : +86-188-1137-9626

EDUCATION

- **Beijing Institute of Technology** Beijing, China
Ph.D. Student in School of Computer Science and Technology, Advisor: Prof. Shuang Li Sep. 2019 - Present
- **Beijing Institute of Technology** Beijing, China
B.Eng. in Software Engineering, GPA: 3.5/4.0 Sep. 2015 - Jul. 2019

RESEARCH INTERESTS

My research interests are in transfer learning, data-efficient learning (particularly unsupervised domain adaptation, active learning) and multimodal learning.

PUBLICATIONS (*CO-FIRST AUTHOR)

1. **Binhui Xie**, Shuang Li, Mingjia Li, Chi Harold Liu, Gao Huang, and Guoren Wang. SePiCo: Semantic-Guided Pixel Contrast for Domain Adaptive Semantic Segmentation, *IEEE Transactions on Pattern Analysis and Machine Intelligence* (**TPAMI**, **Q1**, **IF: 24.31**), 2023.
2. **Binhui Xie**, Longhui Yuan, Shuang Li, Chi Harold Liu and Xinjing Cheng. Towards Fewer Annotations: Active Learning via Region Impurity and Prediction Uncertainty for Domain Adaptive Semantic Segmentation, *IEEE Conference on Computer Vision and Pattern Recognition* (**CVPR**, **Oral**), 2022, New Orleans, Louisiana, USA.
3. **Binhui Xie**, Longhui Yuan, Shuang Li, Chi Harold Liu, Xinjing Cheng, and Guoren Wang. Active Learning for Domain Adaptation: An Energy-based Approach, *AAAI Conference on Artificial Intelligence* (**AAAI**), 2022, Virtual Conference.
4. **Binhui Xie**, Shuang Li, Fangrui Lv, Chi Harold Liu, Guoren Wang, and Dapeng Wu. A Collaborative Alignment Framework of Transferable Knowledge Extraction for Unsupervised Domain Adaptation, *IEEE Transactions on Knowledge and Engineering* (**TKDE**, **Q1**, **IF: 9.235**), 2022.
5. Shuang Li, **Binhui Xie**, Qiuxia Lin, Chi Harold Liu, Gao Huang, and Guoren Wang. Generalized Domain Conditioned Network, *IEEE Transactions on Pattern Analysis and Machine Intelligence* (**TPAMI**, **Q1**, **IF: 24.31**), 44(8): 4093-4109 (2022).
6. Shuang Li, **Binhui Xie**, Jiashu Wu, Ying Zhao, Chi Harold Liu, and Zhengming Ding. Simultaneous Semantic Alignment Network for Heterogeneous Domain Adaptation, *ACM Multimedia*, (**MM**) 2020, Virtual Conference.
7. Mingjia Li*, **Binhui Xie***, Shuang Li, Chi Harold Liu, Xinjing Cheng. VBLC: Visibility Boosting and Logit-Constraint Learning for Domain Adaptive Semantic Segmentation under Adverse Conditions, *AAAI Conference on Artificial Intelligence* (**AAAI**, **Oral**), 2023, Washington, DC, USA.
8. Longhui Yuan, **Binhui Xie**, and Shuang Li. Robust Test-Time Adaptation in Dynamic Scenarios, *IEEE Conference on Computer Vision and Pattern Recognition* (**CVPR**), 2023, Vancouver, Canada.
9. Yuxin Fang, Wen Wang, **Binhui Xie**, Quan Sun, Ledell Yu Wu, Xinggang Wang, Tiejun Huang, Xinlong Wang, and Yue Cao. EVA: Exploring the Limits of Masked Visual Representation Learning at Scale, *IEEE Conference on Computer Vision and Pattern Recognition* (**CVPR**, **Highlight**), 2023, Vancouver, Canada.
10. Shuang Li, Chi Harold Liu, **Binhui Xie**, Limin Su, Zhengming Ding, and Gao Huang. Joint Adversarial Domain Adaptation, *ACM Multimedia* (**MM**), 2019, Nice, France.

11. Shuang Li, Fangrui Lv, **Binhui Xie**, Chi Harold Liu, Jian Liang, and Chen Qin. Bi-Classifier Determinacy Maximization for Unsupervised Domain Adaptation, *AAAI Conference on Artificial Intelligence (AAAI)*, 2021, Virtual Conference.
12. Shuang Li, Kaixiong Gong, **Binhui Xie**, Chi Harold Liu, Weipeng Cao, and Song Tian. Critical Classes and Samples Discovering for Partial Domain Adaptation, *IEEE Transactions on Cybernetics (TYCB, Q1, IF: 19.118)*, 2022.
13. Jiashu Wu, Yang Wang, **Binhui Xie**, Shuang Li, Hao Dai, Kejiang Ye, and Chengzhong Xu. Joint Semantic Transfer Network for IoT Intrusion Detection, *IEEE Internet of Things Journal (IoT, Q1, IF: 10.238)*, 2022.
14. Shuang Li, Chi Harold Liu, Qiuxia Lin, **Binhui Xie**, Zhengming Ding, Gao Huang, and Jian Tang. Domain Conditioned Adaptation Network, *AAAI Conference on Artificial Intelligence (AAAI)*, 2020, New York, NY, USA.
15. Shuang Li, Chi Harold Liu, Limin Su, **Binhui Xie**, Zhengming Ding, C. L. Philip Chen, Dapeng Wu. Discriminative Transfer Feature and Label Consistency for Cross-Domain Image Classification, *IEEE Transactions on Neural Networks and Learning Systems (TNNLS, Q1, IF: 14.255)*, 31(11): 4842-4856 (2020).

Technical Reports

- **Binhui Xie**, Kejia Yin, Shuang Li, and Xinjing Chen. SPCL: A New Framework for Domain Adaptive Semantic Segmentation via Semantic Prototype-based Contrastive Learning, arXiv preprint arXiv:2111.12358.
- Shuang Li, **Binhui Xie**, Bin Zang, Chi Harold Liu, Xinjing Cheng, Ruigang Yang, and Guoren Wang. Semantic Distribution-aware Contrastive Adaptation for Semantic Segmentation, arXiv preprint arXiv:2105.05013.
- Dina Bashkirova, Samarth Mishra, Diala Lteif, Piotr Teterwak, Donghyun Kim, Fadi Alladkani, James Akl, Berk Calli, Sarah Adel Bargal, Kate Saenko, Daehan Kim, Minseok Seo, YoungJin Jeon, Dong-Geol Choi, Shahaf Eteddgui, Raja Giryes, Shady Abu-Hussein, **Binhui Xie**, and Shuang Li. VisDA 2022 Challenge: Domain Adaptation for Industrial Waste Sorting, arXiv preprint arXiv:2303.14828

ACADEMIC SERVICES

- **Organizer** of Workshop: VALSE 2022 (Student Workshop).
- **Reviewer** for AAAI'24, NeurIPS'23, ICCV'23, CVPR'23, ICLR'23, AAAI'23, ECCV'22, CVPR'22, AAAI'22, ICCV'21, CVPR'21, AAAI'21 etc.
- **Reviewer** for TKDE, TIV, etc.

HONORS

- **Special Academic Scholarship**, Beijing Institute of Technology, 2022.
- **CETC GUORUI Scholarship**, CETC, 2021.
- **Excellent Student Scholarship**, Beijing Institute of Technology, 2019.
- **Excellent Undergraduate**, Beijing Institute of Technology, 2019.

COMPETITION

- **3rd place** in Visual Domain Adaptation Challenge 2022, VisDA@NeurIPS 2022
- **2nd place** in ACDC Challenge 2022 domain adaptation track, V4AS@CVPR 2022

INVITED TALKS

- 2023.4, **VALSE**, recorded, Data-Efficient Semantic Segmentation.
- 2022.6, **ReadPaper**, recorded, Towards Fewer Annotations: Active Learning for Adaptive Semantic Segmentation.
- 2022.6, **Synced**, online, Towards Fewer Annotations: Active Learning for Adaptive Semantic Segmentation.
- 2022.5, **Zhidx Course**, online, Domain Adaptation meets Active Learning.
- 2022.03, **AI Drive**, online, Energy-based Active Domain Adaptation.
- 2021.10, **VALSE**, spotlight & poster, Generalized Domain Conditioned Adaptation Network.