

Xie Renchunzi

Personal Information

Ph.D. Candidate, Nanyang Technological University, Singapore.

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Education

Nanyang Technological University (NTU) / SCSE <i>Ph.D. Candidate / Supervisor: Prof. Bo An (Expected to submit thesis in Aug 2024)</i>	2021 – Present Singapore
University College London (UCL) / Department of Statistical Science <i>Master of Science in Data Science (with specialization in Statistics)</i>	2017 – 2018 London, UK
Southwestern University of Finance and Economics (SWUFE) / School of Statistics <i>Bachelor of Economics in Statistics</i>	2013 - 2017 Chengdu, China

Research Appointments

Huawei, Noah's Ark Lab <i>Research Intern / Supervisor: Jianfeng Zhang</i>	2023/06 – 2024/01 Shenzhen
Nanyang Technological University / SCSE <i>Research Associate / Supervisor: Prof. Bo An</i>	2020 – Present Singapore
Nanyang Technological University / SCSE <i>Research Associate / Supervisor: Asst. Prof. Mahardhika Pratama</i>	2019 – 2020 Singapore

Research Interests

Machine learning, Artificial intelligence, Robust deep learning.

Research topics that I am currently working on include:

- Robust machine learning
- Unsupervised error estimation

Publications (All are accepted as full paper)

*First/corresponding author: 5 in CCF-A Conference, 1 in JCR Q1 Journal, (*corresponding author)*

11. **Renchunzi Xie**, Ambroise Odonnat, Vasilii Feofanov, Weijian Deng, Jianfeng Zhang, Bo An. MANO: Exploiting Matrix Norm for Unsupervised Accuracy Estimation Under Distribution Shifts. *Proceedings of the 36th Annual Conference on Neural Information Processing Systems (NeurIPS)*, 2024.
10. **Renchunzi Xie**, Hongxin Wei, Yuzhou Cao, Lei Feng, Bo An. On the Importance of Feature Separability in Predicting Out-Of-Distribution Error. *Proceedings of the 36th Annual Conference on Neural Information Processing Systems (NeurIPS)*, 2023.

9. **Renchunzi Xie**, Hongxin Wei, Lei Feng, Bo An. GearNet: Stepwise Dual Learning for Weakly Supervised Domain Adaptation. *Proceedings of the 36th AAAI Conference on Artificial Intelligence (AAAI'22)*, pp.8717-8725.
8. **Renchunzi Xie**, Mahardhika Pratama. Automatic Online Multi-source Domain Adaptation. *Information Sciences (JCR Q1)*, 582: 480-494, 2022.
7. Hongxin Wei, Huiping Zhuang, **Renchunzi Xie**, Lei Feng, Gang Niu, Bo An, Yixuan Li. Mitigating Memorization of Noisy Labels by Clipping the Model Prediction. *Proceedings of the 39th International Conference on Machine Learning (ICML'23)*, pp.36868-36886.
6. Huiping Zhuang, Zhenyu Weng, Hongxin Wei, **Renchunzi Xie**, Toh Kar-Ann, Zhiping Lin. ACIL: Analytic Class-Incremental Learning with Absolute Memorization and Privacy Protection *Proceedings of the 36th Annual Conference on Neural Information Processing Systems (NeurIPS)*, 2022.
5. Hongxin Wei, **Renchunzi Xie**^{*}, Hao Cheng, Lei Feng, Bo An, Yixuan Li. Mitigating Neural Network Overconfidence with Logit Normalization. *Proceedings of the 39th International Conference on Machine Learning (ICML'22)*, pp.23631-23644, 2022.
4. Hongxin Wei, Lue Tao, **Renchunzi Xie**^{*}, Lei Feng, Bo An. Open-Sampling: Exploring Out-of-Distribution Data for Re-balancing Long-tailed Datasets. *Proceedings of the 39th International Conference on Machine Learning (ICML'22)*, pp.23615-23630, 2022.
3. Hongxin Wei, **Renchunzi Xie**, Lei Feng, Bo Han, Bo An. Deep Learning from Multiple Noisy Annotators as A Union. *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*.
2. Hongxin Wei, Lue Tao, **Renchunzi Xie**^{*}, Bo An. Open-set Label Noise Can Improve Robustness Against Inherent Label Noise. *Proceedings of the 35th Annual Conference on Neural Information Processing Systems (NeurIPS'21)*, pp.7978-7992, 2021.
1. Mahardhika Pratama, Marcus de Carvalho, **Renchunzi Xie**, Edwin Lughofer, Jie Lu. ATL: Autonomous Knowledge Transfer from Many Streaming Process. *Proceedings of the 28th ACM International Conference on Information and Knowledge Management (CIKM)*, pp. 269-278, 2019.

Preprints (Under-Review Submissions)

2. **Renchunzi Xie**, Hongxin Wei, Lei Feng, Bo An. SUN: Improving Robustness against Label Noise via Synthetic Uniform Noise.
1. **Renchunzi Xie**, Ambroise Odonnat, Vasilii Feofanov, Ievgen Redko, Jianfeng Zhang, Bo An. Leveraging Gradients for Unsupervised Accuracy Estimation under Distribution Shift.

Academic Services

Conference Program Committee Member (Reviewer):

- Neural Information Processing Systems (NeurIPS): 2023, 2024
- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR): 2024
- International Conference on Learning Representations (ICLR): 2024, 2025
- International Conference on Artificial Intelligence and Statistics (AISTATS): 2025