Haoliang Sun, PhD

haolsun@sdu.edu.cn Google Scholar Homepage

Employment

2023 – Now **Associate Professor,** School of Software, Shandong University.
2021 – 2023 **PostDoc,** School of Software, Shandong University.
2019 – 2019 **Intern,** Inception Institute of Artificial Intelligence, Abu Dhabi, UAE.

Education

2014 – 2020 **PhD in Computer Science, Shandong University**.
2017 – 2019 **Visiting student in Computer Science, University of Wisconsin–Madison, USA**.
2016 – 2017 **Visiting student in Computer Science, Western University, CA**.
2010 – 2014 **Bachelor in Software Engineering, Shandong University**.

Research Interests

Probabilistic Machine Learning — models uncertainty in data and predictions using probability theory, enabling robust decision-making under uncertainty.

Trustworthy Machine Learning — ensures reliability, fairness, transparency, and robustness in AI systems, making them secure and ethical for real-world applications.

Selective Publications

Conference Proceedings

1. R. Wang, H. Sun, Y. Lin, *et al.*, "Seqmvrl: A sequential fusion framework for multi-view representation learning," in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 2025.
2. R. Wang, H. Sun, Y. Ma, X. Xi, and Y. Yin, "Metaviewer: Towards a unified multi-view representation," in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 2023, pp. 11 590–11 599.
3. R. Wang, H. Sun, X. Nie, Y. Lin, X. Xi, and Y. Yin, "Multi-view representation learning via view-aware modulation," in *Proceedings of the 31st ACM International Conference on Multimedia*, 2023, pp. 3876–3886.
4. Q. Wei, L. Feng, H. Sun, R. Wang, C. Guo, and Y. Yin, "Fine-grained classification with noisy labels," in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 2023, pp. 11 651–11 660.
5. Q. Wei, H. Sun, X. Lu, and Y. Yin, "Self-filtering: A noise-aware sample selection for label noise with confidence penalization," in *European Conference on Computer Vision*, Springer, 2022, pp. 516–532.
6. X. Zhen, H. Sun, Y. Du, *et al.*, "Learning to learn kernels with variational random features," in *International Conference on Machine Learning*, PMLR, 2020, pp. 11 409–11 419.
7. H. Sun, R. Mehta, H. H. Zhou, *et al.*, "Dual-glow: Conditional flow-based generative model for modality transfer," in *Proceedings of the IEEE/CVF International Conference on Computer Vision*, 2019, pp. 10 611–10 620.

8. H. Sun, X. Zhen, C. Bailey, P. Rasoulinejad, Y. Yin, and S. Li, "Direct estimation of spinal cobb angles by structured multi-output regression," in *International Conference on Information Processing in Medical Imaging*, Springer, 2017, pp. 529–540.
9. H. Sun, X. Zhen, Y. Zheng, G. Yang, Y. Yin, and S. Li, "Learning deep match kernels for image-set classification," in *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2017, pp. 3307–3316.

Journal Articles

1. H. Sun, Q. Wei, L. Feng, *et al.*, "Variational rectification inference for learning with noisy labels," *International Journal of Computer Vision*, pp. 1–20, 2024.
2. Q. Wei, L. Feng, H. Sun, R. Wang, R. He, and Y. Yin, "Learning sample-aware threshold for semi-supervised learning," *Machine Learning*, vol. 113, no. 8, pp. 5423–5445, 2024.
3. H. Sun, X. Lu, H. Wang, *et al.*, "Attentional prototype inference for few-shot segmentation," *Pattern Recognition*, vol. 142, p. 109 726, 2023.
4. Y. Du, H. Sun, X. Zhen, *et al.*, "Metakernel: Learning variational random features with limited labels," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 46, no. 3, pp. 1464–1478, 2022.
5. H. Sun, C. Guo, Q. Wei, Z. Han, and Y. Yin, "Learning to rectify for robust learning with noisy labels," *Pattern Recognition*, vol. 124, p. 108 467, 2022.

Patents

1. H. Sun, R. R. Mehta, H. Zhou, V. Singh, V. Prabhakaran, and S. C. Johnson, *Dual flow generative computer architecture*, US Patent 11,544,607, Jan. 2023.

Awards and Achievements

2024 **The Second Prize of Shandong Provincial Science and Technology Progress Award**. Title: Research and Application of Key Technologies for Intelligent Assistant Diagnosis of Breast Cancer.

2023 **Taishan Scholar Young Expert**. Title: Research on Meta-Learning.