Changchang Sun

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Chicago, Illinois - 60616, United States

Research Focus

- **Trustworthy ML**: Machine Unlearning, Adversarial Attack.
- **Generative AI**: Dance-to-Music Generation.
- **Computer Vision**: Human-Object-Interaction Detection.
- **Retrieval**: Cross-Modal Hashing.

Education

- **University of Illinois Chicago** — *Jan. 2025 - Current*
  Ph.D. Student in Computer Science, Advisor: Prof. Yan Yan — Chicago, United States
- **Michigan State University** — *Aug. 2023 - May. 2025*
  Visiting Student in Computer Science, Advisor: Prof. Sijia Liu — East Lansing, United States
- **Illinois Institute of Technology** — *Aug. 2021 - Dec. 2024*
  Ph.D. Student in Computer Science, Advisor: Prof. Yan Yan — Chicago, United States
- **Shandong University** — *Aug. 2018 - Jul. 2021*
  M.S. in Computer Science and Technology, Advisor: Prof. Xuemeng Song and Prof. Liqiang Nie — Qingdao, China
- **Shandong University** — *Aug. 2014 - Jul. 2018*
  B.Eng in Computer Science and Technology — Jinan, China

Publications

C=Conference, J=Journal, U=Under Review

Changchang Sun has co-authored 19 papers in top-tier computer vision, multimedia venues (CVPR, WACV, AAAI, SIGIR etc.) and published 6 first-authored papers. Below are her publications. Full list of publications at **Google Scholar** (Citation 528).

[U.1] **Changchang Sun**, Ren Wang, Yihua Zhang, Jinghan Jia, Jiancheng Liu, Gaowen Liu, Yan Yan, Sijia Liu. **Forget Vectors at Play: Universal Input Perturbations Driving Machine Unlearning in Image Classification**.

[C.1] **Changchang Sun**, Gaowen Liu, Charles Fleming, Yan Yan. **Enhancing Dance-to-Music Generation via Negative Conditioning Latent Diffusion Model**. CVPR'25.

[C.2] **Changchang Sun**, Jialie Shen, Gaowen Liu, Aihua Zheng, Yan Yan. **Tie-Breaking Conflict-Ease Cross-Modal Hashing** . ICIP'25.

[C.3] **Changchang Sun**, Bin Duan, Hugo Latapie, Gaowen Liu, Yan Yan. **DCT: Divide-and-Conquer Transformer Network with Knowledge Transfer for Query-driven HOI Detection**. ICMR'24.

[C.4] Nikhil Sharma, **Changchang Sun**, Zhenghao Zhao, Anne Hee Hiong Ngu, Hugo Latapie, Yan Yan. **SSDL: Sensor-to-Skeleton Diffusion Model with Lipschitz Regularization for Human Activity Recognition**. MMM'24.

[C.5] Zhiliang Wu, **Changchang Sun**, Hanyu Xuan, Gaowen Liu, Yan Yan. **WaveFormer: Wavelet Transformer for Noise-Robust Video Inpainting**. AAAI'24.

[C.6] Bin Duan, Hao Tang, **Changchang Sun**, Ye Zhu, Yan Yan. **Mining and Unifying Heterogeneous Contrastive Relations for Weakly-Supervised Actor-Action Segmentation**. WACV'24.

[C.7] Zhiliang Wu, Kang Zhang, **Changchang Sun**, Hanyu Xuan, Yan Yan. **Flow-guided deformable alignment network with self-supervision for video inpainting**. WACV'24.

[J.1] Xuemeng Song, Chun Wang, **Changchang Sun**, Shanshan Feng, Min Zhou, Liqiang Nie. **MM-FRec: Multi-modal enhanced fashion item recommendation**. TKDE'23.

[C.8] Zhiliang Wu, **Changchang Sun**, Hanyu Xuan, Yan Yan. **Deep stereo video inpainting**. CVPR'23.

[C.9] Hao Ding, **Changchang Sun**, Hao Tang, Dawen Cai, Yan Yan. **Few-shot medical image segmentation with cycle-resemblance attention**. WACV'23.

[C.10] Zhiliang Wu, Hanyu Xuan, **Changchang Sun**, Weili Guan, Kang Zhang, Yan Yan. **Semi-supervised video inpainting with cycle consistency constraints**. CVPR'23.

[J.2] Zhiliang Wu, **Changchang Sun**, Hanyu Xuan, Kang Zhang, Yan Yan. **Divide-and-conquer completion network for video inpainting**. TCSVT'22.

[C.11] Junsheng Wang, Tiantian Gong, Zhixiong Zeng, **Changchang Sun**, Yan Yan. **C3CMR: Cross-Modality Cross-Instance Contrastive Learning for Cross-Media Retrieval**. ACMMM'22.

[C.12] **Changchang Sun**, Hugo Latapie, Gaowen Liu, Yan Yan. **Deep normalized cross-modal hashing with bi-direction relation reasoning**. CVPR'22.

[J.3] Peng Zhan, **Changchang Sun**, Yupeng Hu, Wei Luo, Jiecai Zheng, Xueqing Li. **Feature-based online representation algorithm for streaming time series similarity search**. PRAI'20.

[C.13] Fan Liu, Zhiyong Cheng, **Changchang Sun**, Yinglong Wang, Liqiang Nie, Mohan Kankanhalli. **User diverse preference modeling by multimodal attentive metric learning**. ACMMM'19.

[C.14] **Changchang Sun**, Xuemeng Song, Fuli Feng, Wayne Xin Zhao, Hao Zhang, Liqiang Nie. **Supervised hierarchical cross-modal hashing**. SIGIR'19.

Honors and Awards

- **Travel Grant Award** *2022*
  CVPR
- **Excellent Postgraduate** *2019*
  Shandong University
- **Dean Scholarship of School of Computer Science and Technology** *2019*
  Shandong University
- **Travel Grant Award** *2019*
  SIGIR

Skills

- **Programming Languages:** Python, Matlab, C++, Java
- **Deep Learning Libraries:** Pytorch, TensorFlow, Huggingface

Services

Conference Reviewer: ICLR'24, NeurIPS'24, CVPR'23/24/25, ECCV'24, ACMMM'21/22/23/24, WWW'25, AAAI'24.
Journal Reviewer: TPAMI, TKDE, TOMM, TCSVT, NEUCOM, INS, CVIU.

Mentees

- **Zhiliang Wu (PhD, Nanjing University of Science and Technology)** *Jan. 2022 - Aug. 2024*
  CVPR'23@2, AAAI'24, TCSVT'22
- **Nikhil Sharma (PhD, Illinois Institute of Technology)** *Jul. 2024 - Dec. 2024*
  MMM'24
- **Hao Ding (PhD, Illinois Institute of Technology)** *Jul. 2023 - Oct. 2023*
  WACV'23