

Changchang Sun

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 [Google Scholar](#) |  [Homepage](#) |  [LinkedIn](#)

Chicago, Illinois - 60616, United States

RESEARCH FOCUS

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

EDUCATION

- | | |
|---|---|
| • University of Illinois Chicago
<i>Ph.D. Student in Computer Science, Advisor: Prof. Yan Yan</i> | <i>Jan. 2025 - Present (Expected: May 2027)</i>
Chicago, United States |
| • Michigan State University
<i>Visiting Student in Computer Science, Advisor: Prof. Sijia Liu</i> | <i>Aug. 2023 - May 2025</i>
East Lansing, United States |
| • Illinois Institute of Technology
<i>Ph.D. Student in Computer Science, Advisor: Prof. Yan Yan (transferred to UIC with advisor)</i> | <i>Aug. 2021 - Dec. 2024</i>
Chicago, United States |
| • Shandong University
<i>M.S. in Computer Science and Technology, Advisor: Prof. Xuemeng Song and Prof. Liqiang Nie</i> | <i>Aug. 2018 - Jul. 2021</i>
Qingdao, China |
| • Shandong University
<i>B.Eng in Computer Science and Technology</i> | <i>Aug. 2014 - Jul. 2018</i>
Jinan, China |

PUBLICATIONS

C=CONFERENCE, J=JOURNAL, U=UNDER REVIEW, *=EQUAL CONTRIBUTION

Changchang Sun has co-authored 21 papers published in top-tier machine learning, computer vision, and multimedia venues (ICML, CVPR, AAAI, WACV, SIGIR, ACM MM, among others), including 6 first-authored papers, with 3 additional first-authored papers under review. Full list of publications at [Google Scholar](#) (825 citations).

First-Authored Publications

- [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**.
- [U.2] **Changchang Sun**, Lu Cheng, Yan Yan. **PACE: Part-Wise Slow-Fast Conditioning for Dance-to-Music Generation**.
- [U.3] **Changchang Sun**, Yan Yan. **PHE-DiT: Phase-aware Hierarchical Energy Conditioning for Flexible-Length Dance-to-Music Generation**.
- [C.1] **Changchang Sun**, Vickie Chen, Yan Yan. **SODA: Semantic-Cohesive Knowledge Distillation for Deep Cross-Modal Hashing**. IEEE International Conference on Automatic Face and Gesture Recognition (FG), 2026.
- [C.2] **Changchang Sun**, Gaowen Liu, Charles Fleming, Yan Yan. **Enhancing Dance-to-Music Generation via Negative Conditioning Latent Diffusion Model**. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2025.
- [C.3] **Changchang Sun**, Jialie Shen, Gaowen Liu, Aihua Zheng, Yan Yan. **Tie-Breaking Conflict-Ease Cross-Modal Hashing**. IEEE International Conference on Image Processing Workshops (ICIPW), 2025.
- [C.4] **Changchang Sun**, Bin Duan, Hugo Latapie, Gaowen Liu, Yan Yan. **DCT: Divide-and-Conquer Transformer Network with Knowledge Transfer for Query-driven HOI Detection**. ACM International Conference on Multimedia Retrieval (ICMR), 2024.
- [C.5] **Changchang Sun**, Hugo Latapie, Gaowen Liu, Yan Yan. **Deep Normalized Cross-Modal Hashing with Bi-Direction Relation Reasoning**. IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops (CVPRW), 2022.
- [C.6] **Changchang Sun**, Xuemeng Song, Fuli Feng, Wayne Xin Zhao, Hao Zhang, Liqiang Nie. **Supervised Hierarchical Cross-Modal Hashing**. International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), 2019.

Co-Authored Publications

- [C.7] Huiyi Chen, Jiawei Peng*, Dehai Min*, **Changchang Sun***, Kaijie Chen, Yan Yan, Xu Yang, Lu Cheng. **MVI-Bench: A Comprehensive Benchmark for Evaluating Robustness to Misleading Visual Inputs in LVLMs**. International Conference on Machine Learning (ICML), 2026.

- [C.8] Junyi Wu, Van Nguyen Nguyen, Benjamin Planche, Jiachen Tao, **Changchang Sun**, Zhongpai Gao, Zhenghao Zhao, Anwesa Choudhuri, Gengyu Zhang, Meng Zheng, Feiran Wang, Terrence Chen, Yan Yan, Ziyang Wu. **Consistent Instance Field for Dynamic Scene Understanding**. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2026.
- [C.9] Weitai Kang, Luowei Zhou, Junyi Wu, **Changchang Sun**, Yan Yan. **Visual Grounding with Attention-Driven Constraint Balancing**. ACM International Conference on Multimedia (ACM MM), 2025.
- [C.10] 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**. International Conference on Multimedia Modeling (MMM), 2025.
- [C.11] Zhiliang Wu, **Changchang Sun**, Hanyu Xuan, Gaowen Liu, Yan Yan. **WaveFormer: Wavelet Transformer for Noise-Robust Video Inpainting**. AAAI Conference on Artificial Intelligence (AAAI), 2024.
- [C.12] Bin Duan, Hao Tang, **Changchang Sun**, Ye Zhu, Yan Yan. **Mining and Unifying Heterogeneous Contrastive Relations for Weakly-Supervised Actor-Action Segmentation**. IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), 2024.
- [C.13] Zhiliang Wu, **Changchang Sun**, Hanyu Xuan, Yan Yan. **Deep Stereo Video Inpainting**. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023.
- [C.14] Zhiliang Wu, Hanyu Xuan, **Changchang Sun**, Weili Guan, Kang Zhang, Yan Yan. **Semi-Supervised Video Inpainting with Cycle Consistency Constraints**. IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023.
- [C.15] Zhiliang Wu, Kang Zhang, **Changchang Sun**, Hanyu Xuan, Yan Yan. **Flow-Guided Deformable Alignment Network with Self-Supervision for Video Inpainting**. IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2023.
- [J.1] Xueming Song, Chun Wang, **Changchang Sun**, Shanshan Feng, Min Zhou, Liqiang Nie. **MM-FRec: Multi-Modal Enhanced Fashion Item Recommendation**. IEEE Transactions on Knowledge and Data Engineering (TKDE), 2023.
- [C.16] Hao Ding, **Changchang Sun**, Hao Tang, Dawen Cai, Yan Yan. **Few-Shot Medical Image Segmentation with Cycle-Resemblance Attention**. IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), 2023.
- [J.2] Zhiliang Wu, **Changchang Sun**, Hanyu Xuan, Kang Zhang, Yan Yan. **Divide-and-Conquer Completion Network for Video Inpainting**. IEEE Transactions on Circuits and Systems for Video Technology (TCSVT), 2022.
- [C.17] Junsheng Wang, Tiantian Gong, Zhixiong Zeng, **Changchang Sun**, Yan Yan. **C3CMR: Cross-Modality Cross-Instance Contrastive Learning for Cross-Media Retrieval**. ACM International Conference on Multimedia (ACM MM), 2022.
- [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**. International Journal of Pattern Recognition and Artificial Intelligence (IJPRAI), 2020.
- [C.18] Fan Liu, Zhiyong Cheng, **Changchang Sun**, Yinglong Wang, Liqiang Nie, Mohan Kankanhalli. **User Diverse Preference Modeling by Multimodal Attentive Metric Learning**. ACM International Conference on Multimedia (ACM MM), 2019.

WORK EXPERIENCE

- **TikTok** May 2026 - Aug. 2026
Research Intern, San Jose, AIGC Content Generation and Video Color Grading
- **Pony.ai** May 2025 - Aug. 2025
Research Intern, Fremont, 3D Object Detection

INVITED TALK

- **University of Illinois Chicago, Invited by Prof. Lu Cheng** Nov. 18, 2025
Forget Vectors at Play: Universal Input Perturbations Driving Machine Unlearning In Image Classification

TEACHING EXPERIENCE

- **TA for Mathematical Foundations of Computing @UIC** Fall 2026
Instructor: Prof. Drishika Dey and Prof. Mitch Theys
- **TA for Mathematical Foundations of Computing @UIC** Spring 2026
Instructor: Prof. Omar Ibrahim
- **TA for Introduction to Machine Learning @UIC** Fall 2025
Instructor: Prof. Hao Chen
- **TA for Advanced Machine Learning @IIT** Spring 2022
Instructor: Prof. Yan Yan

CONFERENCE ORGANIZING COMMITTEE

- **Finance Chair** 2025
ICMR

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

ACADEMIC SERVICES

Conference Reviewer: ICLR'24/25/26, NeurIPS'24/25/26, CVPR'23/24/25/26, WACV'26/27, ECCV'24, ACMMM'21/22/23/24, WWW'25, AAAI'24/26.

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 ($\times 2$), AAAI'24, TCSVT'22
- **Nikhil Sharma (PhD, Illinois Institute of Technology)** Jul. 2024 - Dec. 2024
MMM'25
- **Hao Ding (PhD, Illinois Institute of Technology)** Jul. 2023 - Oct. 2023
WACV'23