Wei Lin (Mr.)

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Email: wlin2021at@gmail.com **HomePage**: link **GitHub**: link **Google Scholar**: link

Research interests

Vision-language models, multimodal large language models, multimodal learning, domain adaptation, video understanding

Work Experience

Postdoc at the Institute for Machine Learning — Linz, Austria
(headed by Prof. Sepp Hochreiter, Father of LSTM) — Oct 2023 – current
Johannes Kepler University

Research Assistant — Graz, Austria
Institute of Computer Graphics and Vision — Jan 2019 – Sep 2023
Graz University of Technology

Education

Graz University of Technology — Graz, Austria
PhD in Computer Science — Jan 2019 – Mar 2024
Mentors:
Prof. Horst Bischof (Graz University of Technology)
Prof. Hilde Kuehne (Goethe University Frankfurt, MIT-IBM Watson AI lab)

Technical University of Munich — Munich, Germany
M.Sc. in Electrical and Computer Engineering — Oct 2015 - Jul 2018
Mentors: Prof. Eckehard Steinbach

Organization

Program Chair of the 2nd Workshop on "What is Next in Multimodal Foundation Models" and **Challenge Chair** for the MMFM-Challenge on CVPR 2024, Seattle

Publications

Comparison Visual Instruction Tuning
Wei Lin, Muhammad Jehanzeb Mirza, Sivan Doveh, Rogerio Feris, Raja Giryes, Sepp Hochreiter, Leonid Karlinsky
In collaboration with the MIT-IBM Watson AI Lab
Arxiv 2024

Meta-Prompting for Automating Zero-shot Visual Recognition with LLMs
Muhammad Jehanzeb Mirza, Leonid Karlinsky, Wei Lin, Sivan Doveh, Jakub Micorek, Mateusz Kozinski, Hilde Kuehne, Horst Possegger
In collaboration with the MIT-IBM Watson AI Lab
European Conference on Computer Vision (ECCV) 2024

Conme: Rethinking Evaluation of Compositional Reasoning for Modern VLMs

*Irene Huang, *Wei Lin, *Muhammad Jehanzeb Mirza, Jacob Hansen, Sivan Doveh, Victor Ion Butoi, Roei Herzig, Assaf Arbelle, Hilde Kuehne, Trevor Darrell, Chuang Gan, Aude Oliva, Rogerio Feris, Leonid Karlinsky (*equal contribution)

In collaboration with the MIT-IBM Watson AI Lab

Arxiv 2024

Overlooked Aspects in the Evaluation of Out-Of-Distribution Detection Methods

*Bernhard Lehner, *Christian Huber, Bernhard Moser, Claus Hofmann, Wei Lin, Sepp Hochreiter (*equal contribution)

Arxiv 2024

MAtch, eXpand and Improve: Unsupervised Finetuning for Zero-Shot Action Recognition with Language Knowledge

Wei Lin, Leonid Karlinsky, Nina Shvetsova, Horst Possegger, Mateusz Kozinski, Rameswar Panda, Rogerio Feris, Hilde Kuehne, Horst Bischof

In collaboration with the MIT-IBM Watson AI Lab

International Conference on Computer Vision (ICCV) 2023

LaFTer: Label-Free Tuning of Zero-shot Classifier using Language and Unlabeled Image Collections

Muhammad Jehanzeb Mirza, Leonid Karlinsky, Wei Lin, Mateusz Kozinski, Horst Possegger, Rogerio Feris, Horst Bischof

Conference on Neural Information Processing Systems (NeurIPS) 2023

MATE: Masked Autoencoders are Online 3D Test-Time Learners

*Muhammad Jehanzeb Mirza, *Inkyu Shin, *Wei Lin, Andreas Schriebl, Kunyang Sun, Jaesung Choe, Horst Possegger, Mateusz Kozinski, In So Kweon, Kun-Jin Yoon, Horst Bischof (*equal contribution)

International Conference on Computer Vision (ICCV) 2023

TAP: Targeted Prompting for Task Adaptive Generation of Textual Training Instances for Visual Classification

Muhammad Jehanzeb Mirza, Leonid Karlinsky, Wei Lin, Horst Possegger, Rogerio Feris, Horst Bischof

Arxiv 2023

Video Test-Time Adaptation for Action Recognition

*Wei Lin, *Muhammad Jehanzeb Mirza, Mateusz Kozinski, Horst Possegger, Hilde Kuehne, Horst Bischof (*equal contribution)

Conference on Computer Vision and Pattern Recognition (CVPR) 2023

ActMAD: Activation Matching to Align Distributions for Test-Time-Training
Muhammad Jehanzeb Mirza, Pol Jané Soneira, Wei Lin, Mateusz Kozinski, Horst Possegger, Horst Bischof
Conference on Computer Vision and Pattern Recognition (CVPR) 2023

CycDA: Unsupervised Cycle Domain Adaptation to Learn from Image to Video
Wei Lin, Anna Kukleva, Kunyang Sun, Horst Possegger, Hilde Kuehne, Horst Bischof
European Conference on Computer Vision (ECCV) 2022

Extended Abstract CycDA: Unsupervised Cycle Domain Adaptation to Learn from Image to Video
Wei Lin, Anna Kukleva, Kunyang Sun, Horst Possegger, Hilde Kuehne, Horst Bischof
ECCV 2022 Workshop of Out Of Distribution Generalization in Computer Vision, 2022

Unsupervised Class-aware 3D Object Detection in LiDAR Point Clouds
Christian Fruhwirth-Reisinger, Wei Lin, Dusan Malic, David Schinagl, Georg Krispel, Horst Possegger, Horst Bischof
Arxiv 2023

AIR-DA: Adversarial Image Reconstruction for Unsupervised Domain Adaptive Object Detection
Kunyang Sun, Wei Lin, Haoqin Shi, Zhengming Zhang, Yongming Huang, Horst Bischof
IEEE Robotics and Automation Letters (RA-L) 2023

TAEC: Unsupervised Action Segmentation with Temporal-Aware Embedding and Clustering
Wei Lin, Anna Kukleva, Horst Possegger, Hilde Kuehne, Horst Bischof
Computer Vision Winter Workshop 2023

Sit Back and Relax: Learning to Drive Incrementally in All Weather Conditions
Stefan Leitner, Muhammad Jehanzeb Mirza, Wei Lin, Jakub Microrek, Marc Masana, Mateusz Kozinski, Horst Possegger, Horst Bischof
Intelligent Vehicle Symposium, 2023

Review service

Conference

ECCV 2022, ISMAR 2023, CVPR 2023, NeurIPS 2023, WACV 2024, CVPR 2024, ECCV 2024, NeurIPS 2024, NeurIPS 2024 Dataset and Benchmark Track

Journal

TPAMI 2023, TNNLS 2023, IEEE Trans. Multimedia 2023, Pattern Recognition Letters 2024

Activity

International Computer Vision Summer School 2023

Teaching

Deep Learning and Neural Networks I & II Exercise, Machine Learning: Supervised Techniques Exercise, Machine Learning: Unsupervised Techniques Exercise

Honors and scholarships

Scholarship for Foreign Students (Technical University of Munich) 06.2016

Scholarship for Foreign Students (Technical University of Munich) 06.2017

Industry experience

Robert Bosch GmbH, Corporate Research — Hildesheim, Germany

Research Internship — Oct 2017 - May 2018

Master's Thesis : 3D Human Pose-based Action Recognition

Robert Bosch GmbH, Corporate Research — Leonberg, Germany

Research Internship — Feb 2017 - Jul 2017

Project: Road surface estimation from monocular video data based on P-Spline regression and 3D reconstruction

Skills

Programming

Proficient in: Python, C++

Languages

English, German, Chinese