

Mo Zhou

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STATUS	Chinese citizen	
CURRENT	<ul style="list-style-type: none">Johns Hopkins University Baltimore, MD, USA 21218 Electrical and Computer Engineering, Whiting School of Engineering <i>Ph.D.</i> Electrical and Electronics Engineering 08/2021 - Current	
INTERESTS	<ul style="list-style-type: none">Machine Learning, Deep Learning, and Computer VisionDeep Metric Learning and Cross-modal Retrieval (Vision + Language)Object Recognition and Object DetectionAdversarial Attack and Defense in Deep Learning (AI Security)Linux Operating System Development and Administration	
EXPERIENCE	<ul style="list-style-type: none">Wormpex AI Research LLC Bellevue, WA, USA 98004 Research Intern (Computer Vision) 05/2022 - 08/2022Xi'an Jiaotong University Xi'an, Shaanxi, China 710049 Institute of Artificial Intelligence and Robotics (IAIR) Research Assistant (Computer Vision) 07/2020 - 06/2021	
EDUCATION	<ul style="list-style-type: none">Xidian University Xi'an, Shaanxi, China 710071 <i>M.Eng.</i> Pattern Recognition and Intelligent Systems. July, 2020 09/2017 - 06/2020 <i>Thesis:</i> Coherent Visual-Semantic Embedding for Cross-Modal RetrievalXidian University Xi'an, Shaanxi, China 710126 <i>B.Eng.</i> Electromagnetic Field and Wireless Technology. July, 2017 09/2013 - 07/2017	
PUBLICATIONS	Google Scholar Profile: scholar.google.com/citations?user=BVIO95UAAAAJ Citations: 874 H-Index: 6 i10-Index: 6 Jan. 29, 2023 Other Identifiers: [ORCID] [Publons] [Semantic Scholar] [Web of Science] [DBLP] JOURNAL ARTICLES: (0 TPAMI, 1 TMM) [IEEE Xplore] [J01] Le Wang, <u>Mo Zhou</u> , Zhenxing Niu, Qilin Zhang, Nanning Zheng, "Adaptive Ladder Loss for Learning Coherent Visual-Semantic Embedding," IEEE Transactions on Multimedia (TMM), 2021. DOI: 10.1109/TMM.2021.3139210. CONFERENCE PAPERS: (3 CVPR, 2 ICCV, 1 ECCV, 1 NeurIPS, 1 AAI) [PDF] [C01] Yiqun Mei, Pengfei Guo, <u>Mo Zhou</u> , Vishal M. Patel, "Resource-Adaptive Federated Learning with All-In-One Neural Composition," Advances in Neural Information Processing Systems (NeurIPS), 2022. [PDF] [arXiv] [Github] [C02] <u>Mo Zhou</u> , Vishal M. Patel, "Enhancing Adversarial Robustness for Deep Metric Learning," in Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 2022.	

- [PDF] [arXiv] [Github] [C03] Mo Zhou, Le Wang, Zhenxing Niu, Qilin Zhang, Yinghui Xu, Nanning Zheng, Gang Hua, “*Practical Order Attack in Deep Ranking*,” in Proc. IEEE International Conf. on Computer Vision (ICCV), 2021.
- [PDF] [arXiv] [Github] [C04] Liushuai Shi, Le Wang, Chengjiang Long, Sanping Zhou, Mo Zhou, Zhenxing Niu, Gang Hua, “*SGCN: Sparse Graph Convolution for Pedestrian Trajectory Prediction*”, In Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 2021.
- [PDF] [arXiv] [Github] [C05] Mo Zhou, Zhenxing Niu, Le Wang, Qilin Zhang, Gang Hua, “*Adversarial Ranking Attack and Defense*,” in Proc. European Conf. on Computer Vision (ECCV), 2020.
- [PDF] [arXiv] [Github] [C06] Mo Zhou, Zhenxing Niu, Le Wang, Zhanning Gao, Qilin Zhang, Gang Hua, “*Ladder Loss for Coherent Visual-Semantic Embedding*,” in Proc. AAAI Conf. on Artificial Intelligence (AAAI), 2020.
- [PDF] [C07] Zhenxing Niu, Mo Zhou, Le Wang, Xinbo Gao, Gang Hua, “*Hierarchical Multimodal LSTM for Dense Visual-Semantic Embedding*,” in Proc. IEEE International Conf. on Computer Vision (ICCV), 2017.
- [PDF] [Dataset] [C08] Zhenxing Niu, Mo Zhou, Le Wang, Xinbo Gao, Gang Hua. “*Ordinal Regression with Multiple Output CNN for Age Estimation*,” in Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 2016.

PREPRINT / UNDER-REVIEW PAPERS:



- [X01] Yu Zeng, Mo Zhou, Vishal M. Patel, “(about generated image detection through watermarking)”, 2023, Under Review (double-blind).
- [X02] Mo Zhou, Yiding Yang, Haoxiang Li, Vishal M. Patel, Gang Hua, “(about object detection under some distribution shifts)”, 2022, Under Review (double-blind).
- [arXiv] [X03] Mo Zhou, Vishal M. Patel, “*On Trace and Characterization of PGD-Like Adversarial Attacks*,” 2022, Under Review.
- [arXiv] [Github] [X04] Mo Zhou, Le Wang, Zhenxing Niu, Qilin Zhang, Nanning Zheng, Gang Hua, “*Adversarial Attack and Defense in Deep Ranking*,” 2021, Under Review.

PATENTS

- [P01] Le Wang, Mo Zhou, Sanping Zhou, Shitao Chen, Jingmin Xin, Nanning Zheng, “A Practical Relative Order Adversarial Attack Method”. Chinese Patent No. 202110998691.9.
- [P02] Zhenxing Niu, Wei Xue, Mo Zhou, Bo Yuan, Xinbo Gao, Gang Hua, “Age estimation method based on multi-output convolution neural network and ordered regression”. Chinese Patent No. 201610273524.7.

ACTIVITIES

- Reviewer for International Conferences
 - IEEE Conf. on Computer Vision and Pattern Recognition (CVPR) 2020, 2021, 2022, 2023
 - Annual Conf. on Neural Information Processing Systems (NeurIPS) 2022
 - International Conf. on Computer Vision (ICCV) 2021
 - European Conf. on Computer Vision (ECCV) 2020, 2022
 - International Conf. Learning Representations (ICLR) 2022, 2023
 - International Conf. of Machine Learning (ICML) 2023
 - AAAI Conf. on Artificial Intelligence (AAAI) 2021, 2022
 - Winter Conf. on Applications of Computer Vision (WACV) 2021, 2022, 2023
 - Asian Conf. on Computer vision (ACCV) 2018, 2020, 2022
- Reviewer for International Journals
 - IEEE Trans. on Pattern Analysis and Machine Intelligence (TPAMI) 2021, 2022
 - IEEE Trans. on Neural Networks and Learning Systems (TNNLS) 2022
 - IEEE Trans. on Dependable and Secure Computing (TDSC) 2022
 - Elsevier Journal of Neural Networks (NeuNet) 2022

	<ul style="list-style-type: none"> ◦ Elsevier Journal of Neurocomputing (NeuComp) 2021 ◦ Springer Journal of Machine Vision and Application (MVA) 2020, 2021, 2022 ◦ Springer Journal of Complex & Intelligent Systems (CAIS) 2021, 2022
	<ul style="list-style-type: none"> • Volunteer in Non-profit Free Software Communities ◦  Official Developer for Debian GNU/Linux [lumin@debian.org] 08/2018 – Current ◦  Contributor for Gentoo GNU/Linux 06/2019 – 08/2019
HONORS	<ul style="list-style-type: none"> • Outstanding Reviewer for ICCV 2021 2021 • Open Source Promotion Plan (OSPP) with Tsinghua University TUNA Association 2020 Project: <i>Integrating Data Science Software (incl. Xgboost, etc.) into Debian (Best Quality Award)</i> • Google Summer of Code (GSoC) with Debian Project 2020 Project: <i>BLAS/LAPACK Ecosystem Enhancement for Debian</i> • Google Summer of Code (GSoC) with Gentoo Foundation 2019 Project: <i>BLAS and LAPACK Runtime Switching</i> • Xidian University Secondary School Scholarship.⁺ 2017-2018 • Interdisciplinary Contest in Modeling (ICM) 2016 Meritorious Winner. Advisor: Youlong Yang (Xidian University)
AFFILIATION	<ul style="list-style-type: none"> • Student Member, IEEE Aug 2021 – Dec 2023
REFERENCES	AVAILABLE UPON REQUEST.