## Mo Zhou

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STATUS Chinese citizen

CURRENT • Johns Hopkins University Baltimore, MD, USA 21218

Electrical and Computer Engineering, Whiting School of Engineering

*Ph.D.* Electrical and Electronics Engineering 08/2021 - Current

INTERESTS • Machine Learning, Deep Learning and Computer Vision

• Deep Metric Learning and Cross-modal Retrieval

• Adversarial Attack and Defense in Deep Learning

• Linux Operating System Development and Administration

• Wormpex AI Research LLC
Research Intern (Computer Vision)

Bellevue, WA, USA 98004
05/2022 - 08/2022

• Xi'an Jiaotong University Xi'an, Shaanxi, China 710049

Institute of Artificial Intelligence and Robotics (IAIR)

Research Assistant (Computer Vision) 07/2020 - 06/2021

EDUCATION • Xidian University Xi'an, Shaanxi, China 710071

Thesis: Coherent Visual-Semantic Embedding for Cross-Modal Retrieval

M.S. Pattern Recognition and Intelligent Systems. July, 2020 09/2017 - 06/2020

• Xidian University Xi'an, Shaanxi, China 710126

B.S. Electromagnetic Field and Wireless Technology. July, 2017 09/2013 - 07/2017

PUBLICATIONS Google Scholar Profile: scholar.google.com/citations?user=BVI095UAAAAJ

H-Index: 5 Citations: 666 Jun. 04, 2022

ORCiD: https://orcid.org/0000-0003-3813-4875

Publons: https://publons.com/researcher/4930582/mo-zhou

Semantic Scholar: www.semanticscholar.org/author/Mo-Zhou/2109097390

JOURNAL ARTICLES: (0 TPAMI, 1 TMM)

[J01] Le Wang, Mo Zhou, 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. [IEEE Xplore]

CONFERENCE PAPERS: (3 CVPR, 2 ICCV, 1 ECCV, 1 AAAI)

[C01] Mo Zhou, Vishal M. Patel, "Enhancing Adversarial Robustness for Deep Metric Learning," in Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 2022. [arXiv] [Github]

[C02] 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]

- [C03] 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]
- [C04] 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]
- [C05] 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] [arXiv] [Github]
- [C06] 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]
- [C07] 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. [PDF] [Dataset]

### PREPRINT PAPERS:

- [X01] Mo Zhou, Vishal M. Patel, "On Trace of PGD-Like Adversarial Attacks," 2022, Under Review. [arXiv]
- [X02] Mo Zhou, Le Wang, Zhenxing Niu, Qilin Zhang, Nanning Zheng, Gang Hua, "Adversarial Attack and Defense in Deep Ranking," 2021, Under Review. [arXiv] [Github]

#### **PATENTS**

- [P01] Le Wang, Mo Zhou, Sanping Zhou, Shitao Chen, Jingmin Xin, Nanning Zheng, "A Practical Relative Order Adversarial Attack Method". Chinese Patent Application No. 202110998691.9. (Under Application)
- [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
<ul> <li>Conf. on Neural Information Processing Systems (NeurIPS)</li> </ul>	2022
<ul> <li>International Conf. on Computer Vision (ICCV)</li> </ul>	2021
<ul> <li>European Conf. on Computer Vision (ECCV)</li> </ul>	2020, 2022
<ul> <li>Int. Conf. Learning Representations (ICLR)</li> </ul>	2022
o AAAI Conf. on Artificial Intelligence (AAAI)	2021, 2022
<ul> <li>Winter Conf. on Applications of Computer Vision (WACV)</li> </ul>	2021, 2022
<ul> <li>Asian Conf. on Computer vision (ACCV)</li> </ul>	2018, 2020

### • Reviewer for International Journals

<ul> <li>IEEE, Trans. on Pattern Analysis and Machine Intelligence (TPAMI)</li> </ul>	2021
Elsevier, Neurocomputing	2021
<ul> <li>Springer, Journal of Machine Vision and Application (MVA)</li> </ul>	2020, 2021
<ul> <li>Springer, Complex &amp; Intelligent Systems (CAIS)</li> </ul>	2021, 2022

# • Volunteer in Non-profit Free Software Communities

<ul> <li>Official Developer for Debian GNU/Linux</li> </ul>	08/2018 – Current
Contributor for Gentoo GNU/Linux	06/2019 - 08/2019

Honors	One of Outstanding Reviewers for ICCV 2021	2021
	<ul> <li>Open Source Promotion Plan (OSPP) with Tsinghua University TUNA Assoc Project: Integrating Data Science Software (incl. Xgboost, etc.) into Debian (Best Quality Award)</li> </ul>	ciation 2020
	<ul> <li>Google Summer of Code (GSoC) with Debian Project</li> <li>Project: BLAS/LAPACK Ecosystem Enhancement for Debian</li> </ul>	2020
	<ul> <li>Google Summer of Code (GSoC) with Gentoo Foundation</li> <li>Project: BLAS and LAPACK Runtime Switching</li> </ul>	2019
	<ul> <li>Xidian University Secondary School Scholarship.<sup>+</sup></li> </ul>	2017-2018
	• Interdisciplinary Contest in Modeling (ICM) Meritorious Winner. Advisor: Youlong Yang (Xidian University)	2016
AFFLIATION	• Student Member, IEEE	2021 – 2022
REFERENCES	Available upon request.	