Angtian Wang

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WORKING EXPERIENCE

BYTEDANCE, California, USA — Jun 2024 – Present

- Research Scientist

EDUCATION

Johns Hopkins University, Maryland, USA — Sep 2019 – May 2024

- Ph.D. in Computer Science
- Advisor: Prof. Alan Yuille
- Graduated with Honors

Huazhong University of Science and Technology, Hubei, China — Sep 2015- Jun 2019

- B.S. in Electronic Information Engineering
- Graduated with Honors

INTERNSHIP

Meta, Reality Labs, Washington, USA — Sep 2022 – May 2023

- Research Scientist Intern

TikTok Inc., California, USA — May 2021 – Nov 2021

- Research Intern

PUBLICATION

Angtian Wang, Yuanlu Xu, Nikolaos Sarafianos, Robert Maier, Edmond Boyer, Alan Yuille, Tony Tung. HISR: Hybrid Implicit Surface Representation for Photorealistic 3D Human Reconstruction. *AAAI Conference on Artificial Intelligence* (AAAI), 2024

Angtian Wang, Wufei Ma, Alan Yuille, Adam Kortylewski. Neural Textured Deformable Meshes for Robust Analysis-by-Synthesis. *IEEE/CVF Winter Conference on Applications of Computer Vision* (WACV), 2024

Angtian Wang, Peng Wang, Jian Sun, Adam Kortylewski, Alan Yuille. VoGE: A Differentiable Volume Renderer using Neural Gaussian Ellipsoids. *IEEE/CVF International Conference on Learning Representations*, (ICLR) 2023.

Angtian Wang, Shenxiao Mei, Alan Yuille, Adam Kortylewski. Neural View Synthesis and Matching for Semi-Supervised Few-Shot Learning of 3D Pose. *Conference on Neural Information Processing Systems* (NIPS), 2021.

Angtian Wang, Adam Kortylewski, Alan Yuille. NeMo: Neural Mesh Models of Contrastive Features for Robust 3D Pose Estimation. *International Conference on Learning Representations*, (ICLR) 2021.

Angtian Wang*, Yihong Sun*, Adam Kortylewski, Alan Yuille. Robust Object Detection Under Occlusion With Context-Aware CompositionalNets. *IEEE/CVF Computer Vision and Pattern Recognition Conference*, (CVPR) 2020.

Tom Fischer, Yaoyao Liu, Prakhar Kaushik, Artur Jesslen, Noor Ahmed, **Angtian Wang**, Alan Yuille, Adam Kortylewski, Eddy Ilg. iNeMo: Incremental Neural Mesh Models for Robust Class-Incremental Learning*European Conference on Computer Vision, (ECCV) 2024*

Yuanhao Cai, Yixun Liang, Jiahao Wang, **Angtian Wang**, Yulun Zhang, Xiaokang Yang, Zongwei Zhou, Alan Yuille. Radiative Gaussian Splatting for Efficient X-ray Novel View Synthesis. *European Conference on Computer Vision, (ECCV) 2024*

Artur Jesslen, Guofeng Zhang, **Angtian Wang**, Alan Yuille, Adam Kortylewski. Robust 3D-aware Object Classification via Discriminative Render-and-Compare. *European Conference on Computer Vision, (ECCV) 2024*

Yuxiang Lai, Xiaoxi Chen, **Angtian Wang**, Alan Yuille, Zongwei Zhou. From pixel to cancer: Cellular automata in computed tomography. *International Conference on Medical Image Computing and Computer Assisted Intervention* (MICCAI), 2024.

Yuanhao Cai, Jiahao Wang, Zongwei Zhou*, **Angtian Wang***, Alan Yuille. Structure-Aware Sparse-View X-ray 3D Reconstruction. *IEEE/CVF Computer Vision and Pattern Recognition Conference*, (CVPR) 2024

Fengrui Tian, Yueqi Duan, **Angtian Wang**, Jianfei Guo, Shaoyi Du. Semantic Flow: Learning Semantic Fields of Dynamic Scenes from Monocular Videos. *International Conference on Learning Representations*, (ICLR) 2024.

Wufei Ma, Qihao Liu, Jiahao Wang, **Angtian Wang**, Xiaoding Yuan, Yi Zhang, Zihao Xiao, Guofeng Zhang, Beijia Lu, Ruxiao Duan, Yongrui Qi, Adam Kortylewski, Yaoyao Liu, Alan Yuille. Adding 3D Geometry Control to Diffusion Models. *International Conference on Learning Representations*, (ICLR) 2024.

Jiahao Yang, Wufei Ma, **Angtian Wang**, Xiaoding Yuan, Alan Yuille, Adam Kortylewski. Robust Category-Level 3D Pose Estimation from Synthetic Data. *IEEE/CVF Winter Conference on Applications of Computer Vision* (WACV), 2024

Yi Zhang, Pengliang Ji, **Angtian Wang**, Jieru Mei, Adam Kortylewski, Alan Yuille. 3D-Aware Neural Body Fitting for Occlusion Robust 3D Human Pose Estimation. *International Conference on Computer Vision*, (ICCV) 2023.

Yutong Bai*, **Angtian Wang***, Adam Kortylewski, Alan Yuille. CoKe: Localized Contrastive Learning for Robust Keypoint Detection. *IEEE/CVF Winter Conference on Applications of Computer Vision* (WACV), 2023.

Wufei Ma, **Angtian Wang**, Alan Yuille, Adam Kortylewski. Robust Category-Level 6D Pose Estimation with Coarse-to-Fine Rendering of Neural Features. *European Conference on Computer Vision*, (ECCV) 2022.

Bingchen Zhao, Shaozuo Yu, Wufei Ma, Mingxin Yu, Shenxiao Mei, **Angtian Wang**, Ju He, Alan Yuille, Adam Kortylewski. OOD-CV: A Benchmark for Robustness to Individual Nuisances in Real-World Out-of-Distribution Shifts. *European Conference on Computer Vision*, (ECCV) 2022.

Adam Kortylewski, Qing Liu, **Angtian Wang**, Yihong Sun, Alan Yuille. Compositional Convolutional Neural Networks: A Robust and Interpretable Model for Object Recognition under Occlusion. *International Journal of Computer Vision* (IJCV), 2020.

Yuyin Zhou, Yingwei Li, Zhishuai Zhang, Yan Wang, **Angtian Wang**, Elliot Fishman, Alan Yuille, Seyoun Park. Hyper-Pairing Network for Multi-Phase Pancreatic Ductal Adenocarcinoma Segmentation. *International Conference on Medical Image Computing and Computer Assisted Intervention* (MICCAI), 2019.

Peng Tang, Xinggang Wang, **Angtian Wang**, Yongluan Yan, Wenyu Liu, Junzhou Huang, Alan Yuille Weakly supervised region proposal network and object detection. *European Conference on Computer Vision*, (ECCV) 2018.

Pengliang Ji, **Angtian Wang**, Yi Zhang, Adam Kortylewski, Alan Yuille. Volumetric Neural Human for Robust Pose Optimization via Analysis-by-synthesis. *NeurIPS 2022 Workshop*

Xingrui Wang, Wufei Ma, **Angtian Wang**, Shuo Chen, Adam Kortylewski, Alan Yuille. Compositional 4D Dynamic Scenes Understanding with Physics Priors for Video Question Answering. *arxiv preprint 2024*

Fengrui Tian, Yaoyao Liu, Adam Kortylewski, Yueqi Duan, Shaoyi Du, Alan Yuille, **Angtian Wang**. Learning a Category-level Object Pose Estimator without Pose Annotations. *arxiv preprint 2024*

Chen Wang, **Angtian Wang**, Junbo Li, Alan Yuille, Cihang Xie. Benchmarking Robustness in Neural Radiance Fields. *arxiv preprint 2023*

PATENT

Peng Wang, **Angtian Wang**, Jian Sun. Renderer using explicit object represention via rays tracing volume density aggregation. *US Patent 12,045,927*

EXPERIENCE

Leading Organize of 3rd ARROW workshop in ECCV 2022	Oct 2022
Organize of 4th ARROW workshop in ICCV 2023	Oct 2023
Organize of 2nd ARROW workshop in ICCV 2021	Oct 2021
World Science Conference of Israel	Jul 2015

REVIEW

IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2024
International Conference on Learning Representations (ICLR), 2024
The Association for the Advancement of Artificial Intelligence (AAAI), 2024
Conference on Neural Information Processing Systems (NIPS), 2023
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023
International Conference on Learning Representations (ICLR), 2023
International Conference on Computer Vision (ICCV), 2023
International Conference on Applied Artificial Intelligence (AICONF), 2023
Winter Conference on Applications of Computer Vision (WACV), 2023
International Journal of Computer Vision (IJCV)
European Conference on Computer Vision (ECCV), 2022

IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022

International Conference on Computer Vision (ICCV), 2021

SKILL

Programming Language: Python, CUDA, C/C++, MatLab

DeepLearning Platform: PyTorch, Pytorch3D