

Angtian Wang

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WORKING EXPERIENCE	BYTEDANCE , California, USA ▪ Senior Research Scientist Aug 2025 – Present ▪ Research Scientist Jun 2024 – Aug 2025 ▪ Develop large-scale controllable video generative models for AI effects.
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 ▪ Topic: 3D Virtual human TikTok Inc. , California, USA May 2021 – Nov 2021 ▪ Research Intern ▪ Topic: Differentiable rendering
PUBLICATION	Angtian Wang , Haibin Huang, Jacob Zhiyuan Fang, Yiding Yang, Chongyang Ma. ATI: Any Trajectory Instruction for Controllable Video Generation. <i>Arxiv Preprint (Arxiv)</i> , 2025 Angtian Wang , Yuanlu Xu, Nikolaos Sarafianos, Robert Maier, Edmond Boyer, Alan Yuille, Tony Tung. HISR: Hybrid Implicit Surface Representation for Photorealistic 3D Human Reconstruction. <i>AAAI Conference on Artificial Intelligence (AAAI)</i> , 2024 Angtian Wang , Wufei Ma, Alan Yuille, Adam Kortylewski. Neural Textured Deformable Meshes for Robust Analysis-by-Synthesis. <i>IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)</i> , 2024 Angtian Wang , Peng Wang, Jian Sun, Adam Kortylewski, Alan Yuille. VoGE: A Differentiable Volume Renderer using Neural Gaussian Ellipsoids. <i>IEEE/CVF International Conference on Learning Representations, (ICLR)</i> 2023. Angtian Wang , Shenzhao Mei, Alan Yuille, Adam Kortylewski. Neural View Synthesis and Matching for Semi-Supervised Few-Shot Learning of 3D Pose. <i>Conference on Neural Information Processing Systems (NIPS)</i> , 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.

Zhiheng Liu, Xueqing Deng, Shoufa Chen, **Angtian Wang**, Qiushan Guo, Mingfei Han, Zeyue Xue, Mengzhao Chen, Ping Luo, Linjie Yang. WorldWeaver: Generating Long-Horizon Video Worlds via Rich Perception *Conference on Neural Information Processing Systems (NIPS)*, 2025.

Yufan Deng, Xun Guo, Yuanyang Yin, Jacob Zhiyuan Fang, Yiding Yang, Yizhi Wang, Shenghai Yuan, **Angtian Wang**, Bo Liu, Haibin Huang, Chongyang Ma. MAGREF: Masked Guidance for Any-Reference Video Generation Arxiv 2025

Yifan Yin, Zhengtao Han, Shivam Aarya, Jianxin Wang, Shuhang Xu, Jiawei Peng, **Angtian Wang**, Alan Yuille, Tianmin Shug. PartInstruct: Part-level Instruction Following for Fine-grained Robot Manipulation *Robotics: Science and Systems*, (RSS) 2025

Feng Wang, Timing Yang, Yaodong Yu, Sucheng Ren, Guoyizhe Wei, **Angtian Wang**, Wei Shao, Yuyin Zhou, Alan Yuille, Cihang Xie. Causal Image Modeling for Efficient Visual Understanding, (Arxiv) 2024

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 representation 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	<i>IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2024</i> <i>International Conference on Learning Representations (ICLR), 2024</i> <i>The Association for the Advancement of Artificial Intelligence (AAAI), 2024</i> <i>Conference on Neural Information Processing Systems (NIPS), 2023</i> <i>IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023</i> <i>International Conference on Learning Representations (ICLR), 2023</i> <i>International Conference on Computer Vision (ICCV), 2023</i> <i>International Conference on Applied Artificial Intelligence (AICONF), 2023</i> <i>Winter Conference on Applications of Computer Vision (WACV), 2023</i> <i>International Journal of Computer Vision (IJCV)</i> <i>European Conference on Computer Vision (ECCV), 2022</i> <i>IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022</i> <i>International Conference on Computer Vision (ICCV), 2021</i>
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SKILL	Programming Language: Python, CUDA, C/C++, MatLab DeepLearning Platform: PyTorch, Pytorch3D
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