

ANG CAO

734 330 0188 ◊ ancao dot umich.edu
2260 Hayward St, Ann Arbor, MI 48109

RESEARCH INTERESTS

My primary interest is computer vision and machine learning, especially 3D vision. In particular, I am interested in empowering 3D/4D vision with 2D information, employing Differentiable Rendering and Generative Models.

EDUCATION

University of Michigan, Ann Arbor Ph.D., Computer Science and Engineering Advisor: Prof. <i>Justin Johnson</i>	<i>2020-present</i> GPA 4.0/4.0
University of Michigan, Ann Arbor Master of Science, Electrical and Computer Engineering Signal & Image Processing and Machine Learning track (SIPML)	<i>2018-2020</i> GPA 4.0/4.0
Wuhan University Bachelor of Science in Electrical Engineering	<i>2014-2018</i> GPA 3.9/4.0

EXPERIENCE

Meta GenAI Research Research Scientist Intern We build a pair of instrumental components for 3D neural fields, which scales the 2D-3D mapping by orders of magnitudes. Based on these components, we build a general framework for 3D reconstruction and generation, leading to impressive results.	<i>June 2023 - Nov. 2023</i> Mentor: <i>David Novotny</i>
--	--

PREPRINTS

“LightPlane: Highly-Scalable Components for Neural 3D Fields”
Ang Cao, Justin Johnson, Andrea Vedaldi, David Novotny
In Submission, 2023

PUBLICATIONS

(* indicates equal contribution)
“Text2room: Extracting Textured 3D Meshes from 2D Text-to-Image Models”
Lukas Höllein*, **Ang Cao***, Andrew Owens, Justin Johnson, Matthias Nießner
International Conference on Computer Vision, *ICCV 2023*, **Oral**
[Project Page](#)

“HexPlane: A Fast Representation for Dynamic Scenes”
Ang Cao, Justin Johnson
Computer Vision and Pattern Recognition Conference, *CVPR 2023*
[Project Page](#)

“FWD: Real-time Novel View Synthesis with Forward Warping and Depth”
Ang Cao, Chris Rockwell, Justin Johnson
Computer Vision and Pattern Recognition Conference, *CVPR 2022*

“Inverting and Understanding Object Detector”

Ang Cao, Justin Johnson

Tech Report 2021

“Unified Signal Compression Using Generative Adversarial Networks”

Bowen Liu*, Ang Cao*, Hun-Seok Kim

45th International Conference on Acoustics, Speech, and Signal Processing, *ICASSP 2020*, Oral.

AWARDS AND RECOGNITIONS

Rackham Travel Grant , University of Michigan	2023
Rollin M. Gerstacker Foundation Fellowships , University of Michigan	2020
China National Scholarship , award for top 2% Chinese undergraduate	2016, 2017
Outstanding Graduate of Wuhan University	2018
Meritorious Winner of American Mathematical Contest in Modeling	2017
National Undergraduate Innovation Foundation by Chinese Ministry of Education	2016

ACTIVITIES

AI4ALL , University of Michigan	2021
Summer program aimed at providing an entry point to artificial intelligence, computer science and engineering to high school students from under-represented backgrounds.	

REVIEWER

CVPR 2022-2024, NeurIPS 2023, ICLR 2023-2024, ECCV 2023, ICCV 2022.
IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**)
IEEE Transactions on Visualization and Computer Graphics (**TVCG**)