Shuo Chen



Research Experience

TSAIL, Tsinghua University

Oct. 2023 - Present

Internship in Computer Vision, advised by Prof. Hang Su

Computational Cognition, Vision, and Learning, JHU

June 2023 - Dec. 2023

Internship in Computer Vision, advised by Prof. Alan L. Yuille

PROJECTS

CRM: Single Image to 3D Textured Mesh with Convolutional Reconstruction Model

Oct. 2023 - Mar. 2024

arXiv:2403.05034

- Use six orthographic images as input images to reconstruct 3D contents.
- use a U-Net convolutional network to map the input images to a rolled-out triplane by exploring the strong pixel-level alignment 3 between the input and output.
- Our model can generate a high-fidelity textured mesh from an image in just 10 seconds, without any test-time optimization.

Physics-based Optimization for Visual Reasoning

June 2023 - Dec. 2023

Internship in Computer Vision

- Build a physics simulation simulator that generates scene images consistent with the physical world.
- Pose-estimation task consistent with physical world.
- Scene representation, relational and temporal models for reasoning.

EDUCATION

2020.9 - Present	Tsinghua University	
	B.S. in Mathematics and Physics	(GPA: 3.71/4.0)
2023.7 - 2023.9	Johns Hopkins University	

Summer research program in Computer Vision

TEACHING

TA, Calculus A at Tsinghua University Fall 2022

TA, Calculus A at Tsinghua University Fall 2023

SKILLS

3D Vision	Pytorch3D, PyBullet, Blender
Deep learning	Pytorch, TensorFlow, Open3D

SELECTED HONORS

First Level Scholarship of Tsinghua University