Angela Xing

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EDUCATION

Brown University Expected Graduation May 2024
Sc.B. Computer Science
- Relevant Coursework: Computer Vision, Introduction to Computer Graphics, Deep Learning

RESEARCH EXPERIENCE

Undergraduate Research Assistant June 2022 - Present
Brown Interactive 3D Vision and Learning Lab
- Created a large-scale, real-world 360° multi-view data set of dynamic sequences to enable continued progress in dynamic neural field research
- Evaluated dynamic neural field methods on image reconstruction quality for the data set to provide a benchmark for neural field methods
- Improved the accuracy of a hand-pose estimation method to extract 3D key points and joint angles from multi-view images

UNDER REVIEW

DiVa-360: The Dynamic Visual Dataset for Immersive Neural Fields
Cheng-You Lu*, Peisen Zhou*, Angela Xing*, Chandradeep Pokhariya, Arnab Dey, Ishaan Shah, Rugved Mavidipalli, Dylan Hu, Andrew Comport, Kefan Chen, Srinath Sridhar
(* equal contribution)
Submitted to CVPR 2024
Website

MANUS: Markerless Hand-Object Grasp Capture using Articulated 3D Gaussians
Chandradeep Pokhariya, Ishaan N Shah*, Angela Xing*, Zekun Li, Kefan Chen, Avinash Sharma, Srinath Sridhar
(* equal contribution)
Submitted to CVPR 2024
Website | ArXiv

TEACHING EXPERIENCE

Teaching Assistant Summer 2022
Introduction to Computer Graphics
- Created and improved lab and project handouts, stencil code, and solution code to optimize student learning and understanding
- Tested, provided feedback, and refined handouts and stencil code to ensure clarity and conciseness in assignments

RELEVANT PROJECTS

Pix2Vox November 2022
- Converted the Pix2Vox-F encoder-decoder and context-aware fusion models from PyTorch to TensorFlow to recover 3D voxel representations of objects from single and multi-view images
- Trained, evaluated, and tested the TensorFlow model on the ShapeNet data set

Voxel Carving June 2022

- Produced a 3D voxel representation of a dinosaur and a temple using the Open3D Python library from images taken at multiple camera views

3D Reconstruction May 2022

- Compared quality of 3D reconstructed faces using a Kinect V2 depth sensor and the iPhone depth camera

Dorms at Brown April 2022

- Developed a website that provides Brown University students with more information regarding the dorms on campus (pictures, details, and reviews)
- Focused on implementing the dorm filtering system by utilizing API calls to gather dorm information from a database

Underwater Scene December 2021

- Generated camera movement along a path defined by a piecewise Bezier curve
- Modeled corals using L-systems

EXTRA CURRICULARS

NCAA Division I Women's Gymnastics September 2020 - Present

Varsity Athlete on the Brown Women's Gymnastics Team

- Competed and placed 3rd in individual finals on beam at the USA Gymnastics (USAG) National Championships in 2022
- Earned first-team USAG All-American honors on beam and second-team USAG All-American honors on vault in 2022
- Earned first-team Gymnastics East Conference (GEC) honors on beam (2023) and second-team GEC honors on vault (2022)
- Named Women's Collegiate Gymnastics Association (WCGA) Academic All-American and USAG Scholar Athlete in 2022 and 2023
- Trains at weekly practices and lifts (20 hours total a week) and travels each weekend throughout the winter/spring for competitions (January - April)

TECHNICAL SKILLS

Languages

- *Advanced*: Python, Java
- *Intermediate* C++, React, JavaScript, TypeScript, HTML
- *Proficient*: Selenium, ReasonML, Scala