ANGELA XING

angela_xing@brown.edu • Website • LinkedIn • GitHub

EDUCATION

Brown University Expected Graduation: May 2024

ScB. Computer Science, 4.0/4.0 GPA

Relevant Coursework: Deep Learning • Computer Vision • Computer Graphics • Software Engineering • Statistical Inference • Linear Algebra • Algorithms, Data Structures, and Object-Oriented Programming

EXPERIENCE

Undergraduate Researcher, *Brown University Interactive 3D Vision & Learning Lab* June 2022 - Present

- Built a camera capture system to produce multi-view image data sets of hands and objects.
- Collected data sets of hand movements, objects, and grasp sequences from 53 views using the camera capture system.
- Generated a spiral camera fly-through of scenes using NeRF (neural radiance fields – a method for synthesizing novel views of scenes from a set of input views) from a set of synthetically generated images.

Development Teaching Assistant, *Brown University Computer Graphics* Summer 2022

- Created and improved lab and project handouts, stencil code, and solution code to optimize student learning and understanding.
- Tested, provided feedback, and revised handouts and stencil code to ensure clarity and concision of lab and project tasks.

PROJECTS

Pix2Vox (Python) 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 using a GPU cluster.

Convolutional Neural Networks (Python) October 2022

- Implemented a convolutional neural network and manual 2D convolutional layer to perform image classification on the CIFAR-10 data set.

Voxel Carving (Python) 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.

Under the Sea (C++) December 2021

- Rendered a camera fly-through of an underwater scene that included terrain and corals.
- Generated camera movement along a path defined by a piecewise Bezier curve and modeled corals using L-systems/fractals.

EXTRACURRICULARS

Brown Women's Varsity Gymnastics Team September 2020 - Present

- Competed and placed 3rd in individual finals on beam at the 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.
- Named WCGA Academic All-American, USAG Scholar Athlete, and Brown Gymnastics Rookie of the Year in 2022.

TECHNICAL SKILLS

Languages and Tools	Python, Java, C++, Qt, ReasonML, Scala, TensorFlow
Web Skills	HTML, CSS, TypeScript, React, Selenium