





# Owen Jow

 ohjay  
 owenjow.xyz  
 (650) 288-8553  
 owenjow@berkeley.edu

## Interests

### Computer Vision

e.g. 3D reconstruction, human pose estimation

### Computer Graphics

e.g. sampling and reconstruction  
for photorealistic rendering

### AI/ML

e.g. deep reinforcement learning algorithms

## Education

**University of California, San Diego**  
**MS COMPUTER SCIENCE (4.0), 2020**

*Relevant courses:*

Computer Vision I, II, III  
Deep Unsupervised Learning  
Advances in 3D Reconstruction  
Machine Learning for the Arts  
Machine Learning on Geometrical Data  
Sampling/Reconstruction of Visual Appearance

**University of California, Berkeley**  
**BA COMPUTER SCIENCE (3.8), 2018**

*Relevant courses:*

Algorithms  
Optimization  
Linear Algebra  
Computer Vision  
Machine Learning  
Computer Graphics  
Artificial Intelligence  
Deep Neural Networks  
Computational Photography  
Graduate Computer Graphics  
Deep Reinforcement Learning

## Skills

Python	TensorFlow	ROS
C/C++	PyTorch	Photoshop
Java	OpenGL	Animate CC
JavaScript	OptiX	Autodesk Maya

## Experience

### Research Assistant @ UCSD Visual Computing Lab

01/2019  
- Present

- Working with Prof. Ravi Ramamoorthi on using deep learning to efficiently relight animated humanoid characters and approximate global illumination for games.

### Research Intern @ Adobe (Emerging Graphics Group)

06/2019  
- 09/2019

- Developed feature-rich CPU/GPU path tracers which were integrated into Adobe Dimension as rendering backends.

### Research Intern @ Adobe (Emerging Graphics Group)

05/2018  
- 09/2018

- Explored methods for monocular, in-the-wild 3D human pose estimation. Submitted patent application for an approach based on parameterizing using joint rotations.

### Research Assistant @ UC Berkeley Robot Learning Lab

06/2016  
- 05/2018

- Under supervision of Prof. Pieter Abbeel, developed a system for training robots to autonomously perform complex manipulation tasks using deep learning and data from VR teleoperation. Published paper at ICRA 2018.

## Publications

Deep Imitation Learning for Complex Manipulation Tasks from Virtual Reality Teleoperation (ICRA 2018).

*T. Zhang, Z. McCarthy, O. Jow, D. Lee, X. Chen, K. Goldberg, P. Abbeel*

## Teaching

### UC Berkeley

CS 61A: Structure and Interpretation of Computer Programs  
*Tutor (Fall 2015), TA (Spring 2016, Fall 2016, Spring 2017)*

CS 194-26: Image Manipulation and Computational Photography  
*Reader (Fall 2017)*

CS 170: Efficient Algorithms and Intractable Problems  
*TA (Spring 2018)*

### UC San Diego

CSE 152/252A: Undergraduate/Graduate Computer Vision  
*TA (Fall 2018, Spring 2019, Fall 2019)*

CSE 21: Mathematics for Algorithms and Systems Analysis  
*TA (Winter 2019)*

## Selected Projects

### KPCN Denoising for Monte Carlo Path Tracing

Implemented 2018 KPAL paper by Vogels et al., which as of Fall 2018 is the state of the art method for denoising Monte Carlo renderings.

### Occlusion-Aware Multi-Object Viewpoint Prediction

Given a single RGBD view of a multi-object scene and a desired viewpoint, predict the desired RGBD view. Reconstruct 3D scene geometry by combining depth maps from multiple views.