

JEFFREY ZHANG

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EDUCATION

University of California, Berkeley, Berkeley, CA

BA Computer Science

Major GPA: 3.8

May 2018

RELATED EXPERIENCE

University of California, San Francisco, San Francisco, CA

Deo Lab - Undergraduate Researcher

Researcher at UC Berkeley and UCSF under Prof. Rahul Deo. Researched computer vision and machine learning techniques to diagnose heart conditions and abnormalities in echocardiograms (ultrasound videos of the heart). Develop pipeline for echocardiogram diagnosis in python/Tensorflow.

January 2017 – Current

University of California, Berkeley, Berkeley, CA

HART Lab - Undergraduate Researcher

Researcher at UC Berkeley under Prof. Ruzena Bajcsy. Worked on ultrasound and MRI image segmentation to build human dynamical models for building exoskeletons. Developed automated pipeline for MRI bone segmentation.

July 2016 – March 2017

University of California, Berkeley, Berkeley, CA

CS194-26 Course Reader

Reader for CS194-26 Image Manipulation and Computational Photography taught by Prof. Alexei Efros. Graded project assignment and hosted office hours.

August 2017 – December 2017

Vercury Inc., Palo Alto, CA

Computer Vision Intern

Summer internship at Vercury Inc. on digital watermarking algorithms for concealing information in images. Researched two new robust watermarking algorithms against print-scan attacks. Developed an image search algorithm based on NV (nearest vector) trees for millions of images.

May 2015 – August 2015

PUBLICATIONS AND PROJECTS

A Web-Deployed Computer Vision Pipeline for Automated Determination of Cardiac Structure and Function and Detection of Diseases by Two-Dimensional Echocardiography

First-name author on paper for diagnosis of diseases from echocardiograms. Advised by Prof. Rahul Deo, Pulkit Agrawal, and Prof. Alexei Efros.

2017

Hierarchical Video Prediction Implementation and Experimentation

Code reimplementing of Villegas et al.'s Learning to Generate Long-term Future via Hierarchical Prediction. Code available at https://github.com/ZhongxiaYan/video_prediction with additional experimentation and write-up.

2017

Fine-grained Bird Dataset

On-going project on fine-grained recognition and low-shot learning with novel dataset containing unique bird species from New Zealand and India. In collaboration with Tapabrata Chakraborti and Peter Wang.

2017

Machine Learning at Berkeley – Unity Deep Reinforcement Learning

Member of student-run organization Machine Learning at Berkeley. Part of team collaborating with Unity (game engine company) on deep reinforcement learning. Researched deep reinforcement learning agents to play games in complex environments that simulate the nuances of the real world (i.e., Shadow Tactics)

2017

TECHNICAL SKILLS

Python, Java, C/C++, Matlab, Latex

Tensorflow, Caffe, Pytorch

LANGUAGES

English – Native Language

Chinese (Mandarin) – Speak Fluently and read/write with high proficiency

MEMBERSHIPS/EXTRACURRICULARS

Machine Learning at Berkeley, Cal Climbing, AFX Hip-Hop Dance Team, Cal Badminton, Cal Jiu-jitsu