Georgia Tech's Computational Photography Class Portfolio

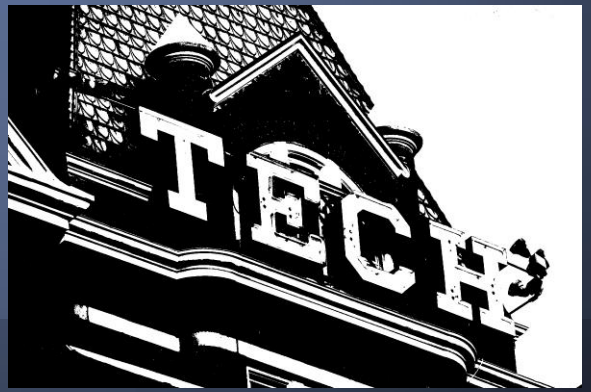
Sadeq Zabihi
zabihi@gatech.edu

https://cs6475.wordpress.com/2016-spring/

Assignment #1: A Photograph is a Photograph

Azul scene, Lahaina, Hawaii
Using an IPhone 6S

Assignment #2: Image I/O



Assignment #3: Epsilon Photography

1

2

3

4

HDR

HOME: HDR of 4 different exposure images.

Assignment #3: Epsilon Photography

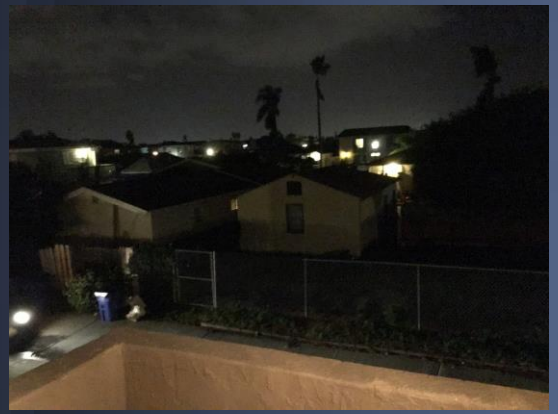


Image 1

Image 2

Image 3

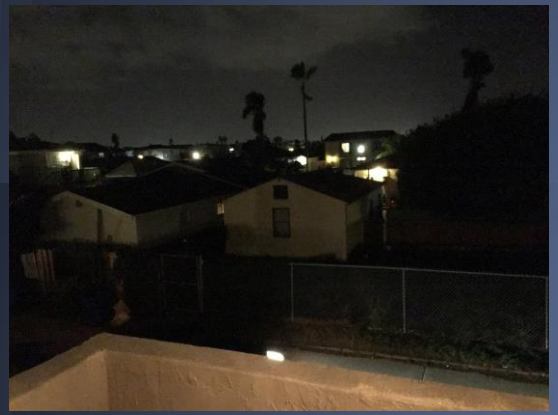


Image 4

Image 5

Image 6

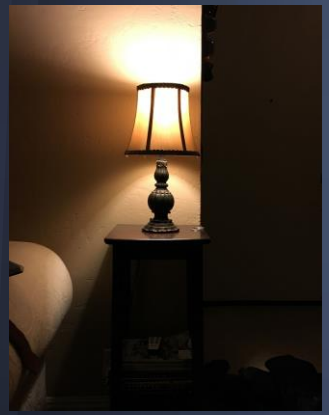
Final

The final photo is result of merging 6 photos that vary in lighting condition caused by a moving car as well as the motion of the palm trees fronds due to the heavy winds.

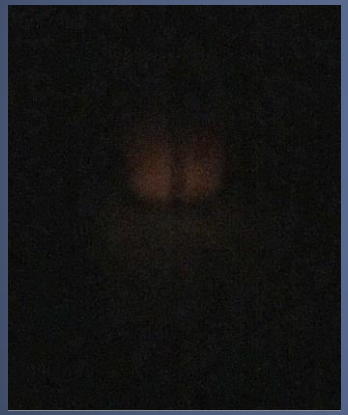
Assignment #4: Gradients and Edges




Assignment #5: Camera Obscura



The Scene



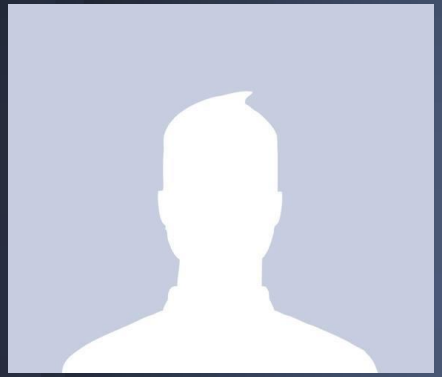
The Image

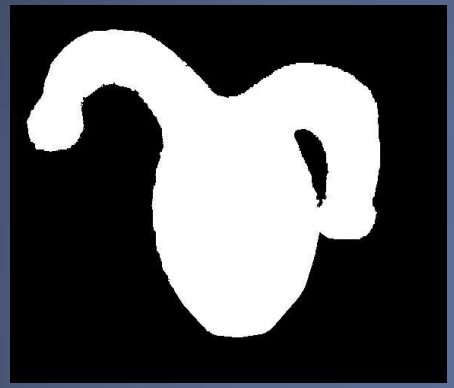
The Setup I

The Setup II

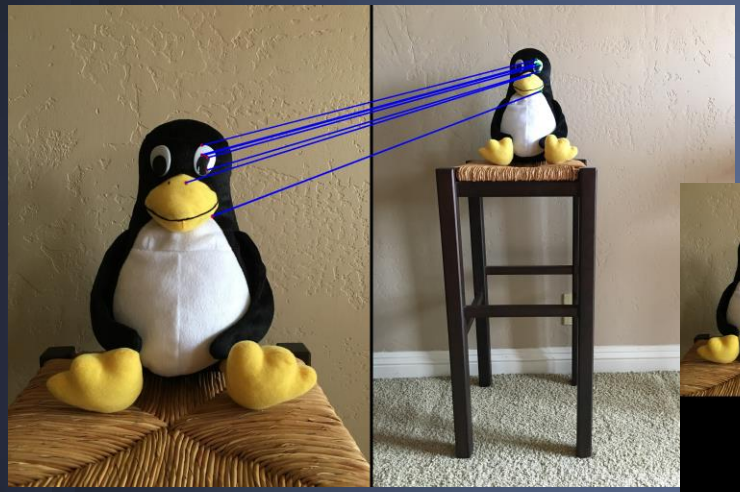
The Setup III

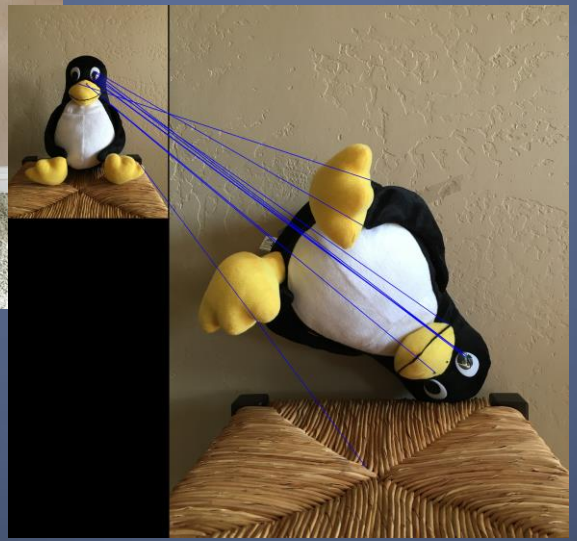
Assignment #6: Blending

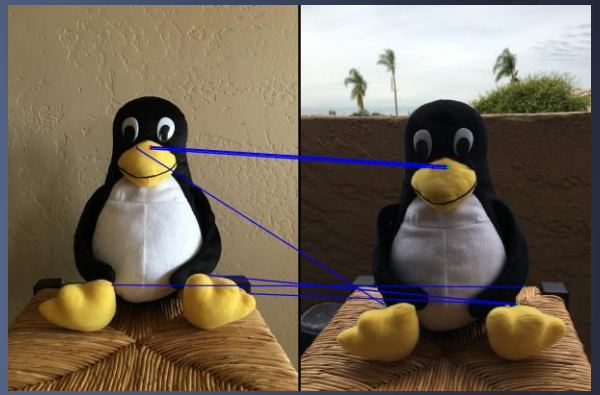


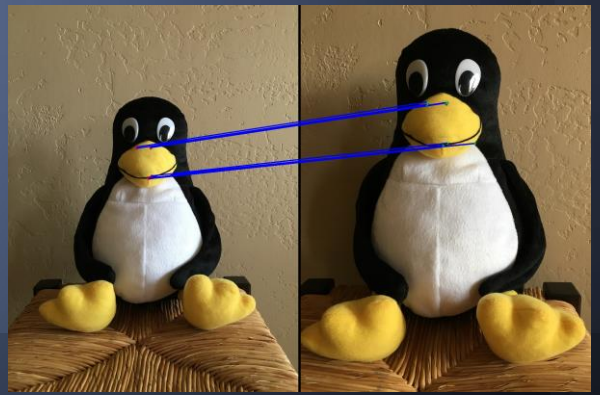


Assignment #7: Feature Detection









Assignment #8: Panoramas

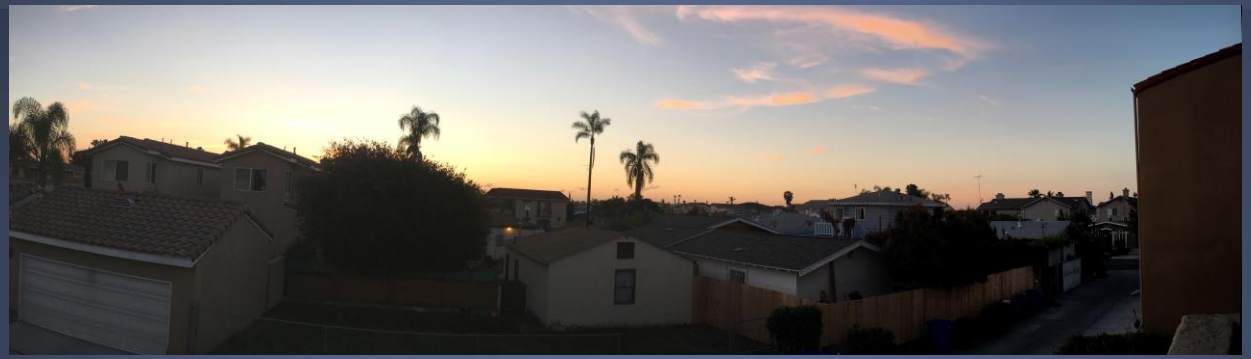
Assignment #9: HDR






Assignment #9: HDR

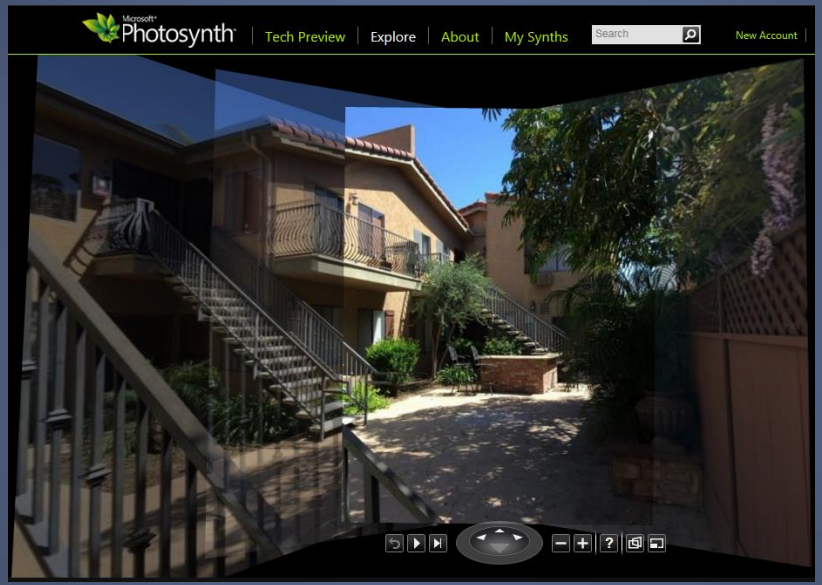
Assignment #10: Pictures of Space (1)



Panorama 1, 5 of Pictures. Microsoft ICE USED

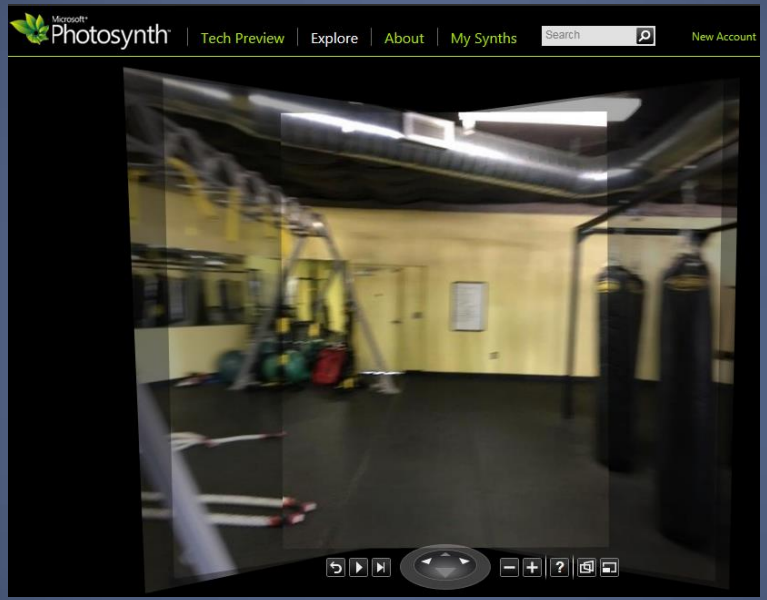
Panorama 2, 10 of Pictures. Microsoft ICE USED

Assignment #10: Pictures of Space (2)



Location: San Diego, friend's house
How many photographs? 87 (HDR)
Photosynth: https://goo.gl/oMczph
All photos: https://goo.gl/aRl78F

Assignment #10: Pictures of Space (3)



Location: San Diego, Gym
How many photographs? 117
Photosynth: https://goo.gl/PJq0LG
All photos: https://goo.gl/ymItc7

Assignment #11: Video Textures (1)

First 26 Last GIF link



http://giphy.com/gifs/l4hLMLzKUK5YN5AIw



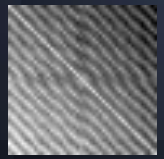
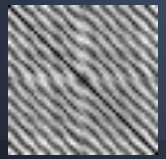
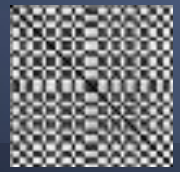
Assignment #11: Video Textures (2)

First | 26 | Last | GIF link



http://giphy.com/gifs/3o6ozxnRg1ncg47Njq

All input images:
https://goo.gl/D5FcMt

Final Project - PyMeter

This is an effort within image processing and computer vision space to compute distance of an object from the camera. I'm implementing triangle similarity theorem using Python and OpenCV.

Motivation:
The idea came to my mind when I was hiking Torrey Pines on a weekend and when I got to the top I wanted to estimate how far I parked by looking at the parking area.
https://github.com/msz10/CPV

Final Project (2)

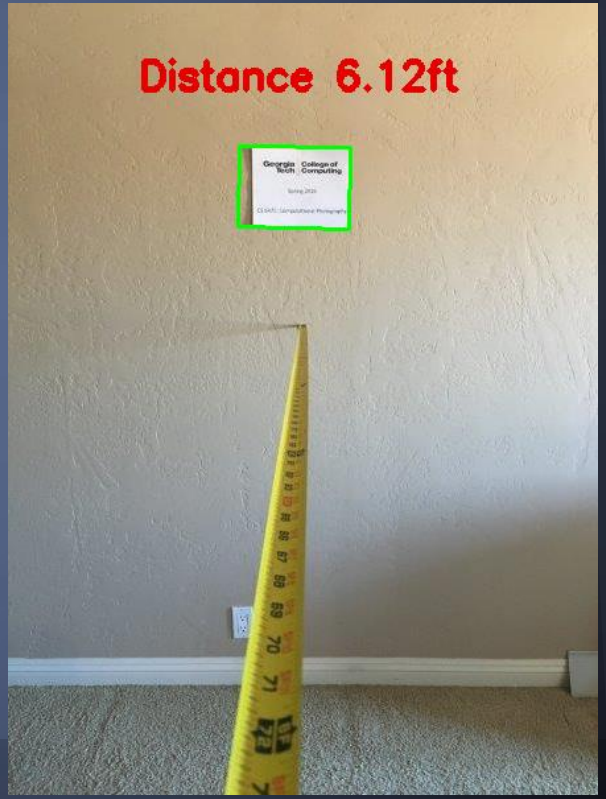
Input

Output

Final Project (3)

Input

Output



Thanks!