Adam Pollack

apollack11.github.io
862-812-8686 | apollack11@gmail.com | Bay Area, CA

Education

Northwestern University, Evanston, IL — September 2016-September 2017
- Master of Science in Robotics, GPA: 3.96
- Relevant Course Topics: Machine Learning, Tensorflow, Robot Operating System, Computer Vision, CUDA GPU Programming, Numerical Methods, Python, C++, Java, Matlab

Lehigh University, Bethlehem, PA — August 2012-May 2016
- Bachelor of Science in Mechanical Engineering
- Honors: Dean's List, Tau Beta Pi Engineering Honor Society

Experience

Robotics Engineer, Knightscope — September 2017-Present
- Wrote code in Python and C++ to run in the field on over 50 robots in production
- Redesigned and rewrote the video analytics pipeline to improve performance and extensibility
- Used Caffe and TensorRT to create a multi-object detector to run on a Jetson TX1
- Integrated Amazon Rekognition into the video analytics pipeline for facial recognition
- Created an Optical Character Recognition (OCR) system to read license plates using models trained in Tensorflow and Caffe
- Used AWS to create a scalable OCR endpoint which runs 24/7
- Mentored an intern in Python, computer vision, and deep learning

Software Developer, GreekPillar — May-August 2016
- Designed and built a responsive UI for the platform using AngularJS
- Used HTML/CSS and AngularJS to develop a dynamic form designer
- Employed AngularJS services to connect data from a Robomongo database to the front end

Co-Op Engineer, RathGibson — August-December 2014, May-August 2015
- Part of Lehigh University's Engineering Co-Op Program
- Worked on R&D projects to help the company better understand their tubing product

Projects

Comparing Methods for Object Recognition, *MSR Winter Project,* Northwestern University — Winter 2017
- Implemented Bag of Words method to perform object recognition using SIFT features
- Used a Support Vector Machine (SVM) to train a classifier on extracted features
- Worked with TensorFlow to train a convolutional neural network to recognize objects
- Wrote code in Python which ran utilizing the Robot Operating System (ROS)
- Implemented MoveIt! for motion planning and collision avoidance

Shape Stream, Android and iOS Mobile Game — Spring 2016
- Used Java to create a cross-platform mobile application for Android and iOS
- Built on the LibGDX game engine and ported to iOS using RoboVM
- Won the Mobilehigh game competition at Lehigh University

Leadership

Vice President, *Phi Delta Theta PA Eta*, Lehigh University — Spring 2015-Fall 2015
- Served as chairman of the chapter Officer Council and Executive Committee
- Oversaw all internal operations and organized the committee structure of the chapter