Adam Pollack

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Education

Northwestern University, Evanston, IL — 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

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
- Conducted research to help the company better understand the properties of their tubing product
- Modeled tubing sample behavior under increasing internal pressure using strain gage data
- Formulated an equation to model the burst pressure of a tube based on burst test results
- Researched and purchased a new apparatus for collapse testing tubing samples

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
- Working with TensorFlow to train convolutional neural networks to recognize objects

Baxter Shell Game, *Embedded Systems in Robotics,* Northwestern University — Fall 2016
- Programmed a Baxter robot to find an object under one of three cups after shuffling
- Wrote code in Python which ran utilizing the Robot Operating System (ROS)
- Used OpenCV to track the location of the three cups and the object
- Implemented MoveIt! for motion planning and collision avoidance

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

Interior Wall Imaging, *Integrated Product Development,* Lehigh University — Spring 2015-Fall 2015
- Worked to find a solution to map obstructions within a wall to provide a path for a robot
- Used Matlab to gather signals from current wall scanning technologies
- Presented information regarding market research and product mock-ups to a panel

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