# SHANE KELLY

shane.kelly@students.olin.edu
shanegerardkelly.com
512-934-4094
shanek21


## Education

Franklin W. Olin College of Engineering
Robotics Engineering
2018

## Skills

**SOFTWARE**

C++
Python
MATLAB
Arduino C
RobotC
Java
ROS
Linux
GitHub
SVN
Emacs <3

**ELECTRICAL**

Signal Processing
Analog Circuit Design
Circuit Debugging

**MECHANICAL**

SolidWorks
Autodesk Inventor
3D Printing
Basic Machine Shop Training

## Other Passions

Beekeeping
Table tennis
Billiards
Fencing (épée)

## Employment

Olin College of Engineering — Needham, MA
3D Printing Student Teacher — Aug 2014 to Current
I train other students to use 3D printing resources on campus and help to maintain/repair Olin's 3D printers.

Raytheon BBN Technologies — Cambridge, MA
Sensor Systems Intern — May 2016 to Aug 2016
Built and wrote software for large-scale, real-time embedded systems using C++.

Pharos Labs LLC — Boston, MA
Software Development Intern — May 2015 to Aug 2015
Used python to create applications for internally-facing company research centered around data collection/analysis.

Reliable Appliance Repair — Austin, TX
Engineering Design Consultant — Jul 2015 to Dec 2015
Designed, CADed, and created technical drawings of new equipment that could be used in the field of in-home appliance installation.

## Projects

Autonomous Robot Race
Building an autonomous robot from the ground up to compete in an unmanned vehicle race.

MAHRI - Minimalist Approach to Human Robot Interaction
Working on a research project with the goal of making a robot that conveys emotion while using as few moving parts as possible.

Humanoid Robot 'Jimmy'
Implemented ROS, computer vision, and machine learning to add human-compatible interactions to a humanoid robot, including having Jimmy turn his head to track your face as you speak.

Interactive Wearable Vest
Worked on CAD, 3D printing of design iterations, and design/implementation of the electrical system for an interactive, wearable art piece, which visualizes body data of the wearer and their surroundings.

3D Scanner
Built and programmed a full 360 degree 3D scanner using an Arduino.

Analog Control of a DC Motor
Implemented analog control to set position of a DC motor without any added sensors.

Patent Pending - 3D Printing
Currently patent pending for an apparatus that prevents moisture absorption in filaments during 3D printing and long-term storage.

Web Enabled Lighting
Created a system to control my room lighting from the web using an Arduino and a Raspberry Pi.

HubwayPredict Machine Learning
Used Python's Sci-Kit Learn library to implement machine learning algorithms in order to predict future customer behavior in Hubway's public bike renting service.

## Relevant Coursework

Fundamentals of Robotics
Learn and implement robot construction, electrical layout, and software development.

Controls
Learn and apply control theory to analyze and manipulate real-world electromechanical systems.

Digital Signal Processing
Analyze discrete time signals and systems with a focus on real world applications.

Principles of Engineering
Project-based integration of software, electrical, and mechanical systems.

Software Design
Python-based class focused on the real-world application of programming.