SHANE KELLY

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Education

Franklin W. Olin College of Engineering
Robotics Engineering 2018

Skills

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

ELECTRICAL
Signal Processing
Analog Circuit Design
Circuit Debugging

MECHANICAL
CAD
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 real time embedded systems.

Pharos Labs LLC — Boston, MA
Software Development Intern — May 2015 to Aug 2015
Used python to create applications for internally-facing company research and worked on 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.

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 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

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.

Modeling and Simulation
Analysis of physical systems and creation of accurate computer simulations in MATLAB.

Products and Markets
Creation of a product in an agile business environment and the pursuit of product-market fit.