SHANE

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n shanek21

Education

Franklin W. Olin College of Engineering Robotics Engineering 2018

Skills

SOFTWARE

C++

Python

Arduino C

Matlab

RobotC

Java

ROS

Linux

GitHub

SVN

ELECTRICAL

Microcontrollers

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

Raytheon BBN Technologies

Sensor Systems Intern

Cambridge, MA May 2016 to Aug 2016

Built and wrote software for real time embedded systems.

Pharos Labs LLC

Boston, MA May 2015 to Aug 2015

Software Development Intern Used python to create basic applications for company research and worked on some data collection/analysis

Reliable Appliance Repair

Austin, TX

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 'limmy'

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 circuit 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 stabilize naturally unstable 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.