Isaac Fenta

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Education

Massachusetts Institute of Technology Cambridge, MA
Bachelor of Science in Mechanical Engineering w/ concentration in Robotics and Theater Arts June 2015
Cumulative GPA: 3.8/5.0
Relevant coursework: Engineering System Development, Product Engineering Process, Electronics for Mechanical Systems, Design and Manufacturing, Robotics: Science and Systems, Measurement and Instrumentation, Dynamics and Control, Bio-inspired Robotics

Skills

Computer C, C++, Python, MATLAB, LabVIEW, SolidWorks, Arduino, Raspberry Pi, Qt Creator, LCM, ROS, TKinter
Hands-on Trained to work in a machine shop, laser cutter, water jet, mill, lathe, 3D Prototyping, circuit components

Experience

New Valence Robotics (NVBOTS) Boston, MA
Mechanical Engineering Intern January 2015

- Controlled robot with variety of sensors on Arduino to help make the lesson plan for the high school students
- Developed lesson plans so high school students can easily learn how to operate and build a small robot
- Designed and printed a robot chassis and wheel with SolidWorks to be 3D printed
- Delivered technical reports of tolerance data and in-depth robot parts dimensions

MIT Nano-Photonics and 3D Nano-Manufacturing Laboratory Cambridge, MA
Mechanical Engineering Research Intern June 2014 – August 2014

- Designed, fabricated, and prototyped a new type of 3D printer to test different printing materials and features
- Coded 3D printer system in LabVIEW to integrate multiple components of the printer
- Created a User Interface (UI) in LabVIEW to test and calibrate actuators of the system

MIT Media Laboratories Cambridge, MA
Product Design Research Intern June 2012 – August 2012

- Designed additional applications for the FlickInk project. The FlickInk project is a pen which memorizes what you write, and you can flick the image onto a monitor.
- The concepts brainstormed developed the Lightbytes system: an installation of window blinds that opens its flaps depending on what image was received and the light coming through
- Winner of the IF Design Award in 2014: LIGHTBYTE

Projects

MIT System Development Class Project w/ MIT Lincoln Laboratory Cambridge, MA
Product Engineer Student February 2015 – May 2015

- Collaborated in a team of 20+ people to build, and test an Unmanned Aerial Vehicle (UAV) Charging Pod
- Linked different modules in our Pod together using LCM for ease in communicating between the modules
- Designed a UI to help users control our charging pod with ease in python based tkinter and c based qt creator
- Controlled servos and sensor data with Arduino and raspberry pi to control the Pods docking system
- Initiated communication with raspberry pi and Arduino through serial connection to send data between them
- Coded sockets to send data and files from the pod to the UI so the user can live stream the data

MIT Product Engineering Class Project Cambridge, MA
Product Engineer Student September 2013 – December 2013

- Collaborated in team of 16-20 people to design, test, and produce a drill bit identifier
- Developed different ideas of products that our team could present as a prototype in a final presentation
- Wired and coded display screens using Arduino and raspberry pi to view output in our drill bit identifier
- Soldered microcontrollers, regulators, switches, and power components onto a PCB for condensed look

Leadership and Activities

Sigma Phi Epsilon Fraternity Boston, MA
VP Communications and Work Week Manager September 2010 - Present

- Organized list of events, and placed them all on a google calendar for the whole chapter to see
- Worked with a budget to make improvements around our fraternity house

MIT Sport Taekwondo Club Cambridge, MA
Assistant Instructor and Team Captain January 2011 – Present

MIT Dramashop Club Cambridge, MA
Actor January 2015 – Present