Mark Lang

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Northeastern University, Boston, MA

Bachelor of Science in Electrical Engineering   May 2017
GPA: 3.756
Honors: Dean's List (all academic semesters)
Relevant Coursework: Data Structures & Algorithms, Advanced Writing in Technical Professions
Activities: NU Songwriters Club, NU Choral Society, Acoustical Society of America

Web Development Training

Current academic courses: Fundamentals of Networks
Lynda courses: HTML5: Structure, Syntax, and Semantics, Javascript Essential Training, Bootstrap 3 Essential Training
Codecademy courses: HTML & CSS, Javascript, jQuery, ReactJS, Python, Git

Tools and Languages

Proficient in: HTML5, CSS3, Javascript, jQuery, Bootstrap, Git
Experience in: React, Python, Batch, C++

Capstone Project

Audio Expression Box   May 2016 - Present
Purpose: To build a tool that can sense a music performer's hand motions in a three dimensional Cartesian system, and use the xyz coordinates, as well as hand gestures, to change the parameters of audio effects in real time
Primary Responsibilities: Development of a web app UI using ReactJS for the purpose of setting up the tool, selecting audio effects to place in the audio signal path, building presets, providing visual feedback of user's hand position, showing frequency spectrum of the audio stream in real time, and communicating with external scripts to send/receive data
Secondary Responsibilities: Programming the motion tracking system using Python, creating digital audio effects using the MaxMSP software package

Professional Experience

QinetiQ-North America – Waltham, MA   July 2016 - Present
Electrical Engineering Robotics Hardware Co-op

- Providing electrical engineering support for a 10-person team while working with many simultaneous projects, such as design of internal parts for robot systems
- Originated more than 30 technical drawings in Microsoft Visio and procedural documents in Microsoft Word to be used for internal production reference
- Tested and performed troubleshooting on more than 50 printed circuit boards as well as full systems, with the purpose of debugging failures and preparing for production

Celera Motion – Bedford, MA   June 2015 – Apr 2016
Electrical Engineering and Product Marketing Co-op

- Managed the company social media pages, published one post per week on various field-related topics, with the purpose of directing traffic to company website
- Wrote a customer facing technical document which gave an explanation of a proprietary technology, for the purpose of educating customers on using the technology
- Provided feedback on company website and YouTube videos, resulted in many changes and edits made to website UX and video layout
- Diagnosed product electrical failures and created documentation to be used as a guide for fixing common issues while manufacturing boards

Bose Corporation – Framingham, MA   June 2014 – Jan 2015
Product Safety Co-op

- Disassembled products and found root causes of failures, generated technical reports of findings which led to re-design of some products to avoid possible electrical safety hazards