Eric Syu

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Education:

B.S, Mathematics-Computer Science — Expected Graduation Date: June 2018
UC San Diego

Related Coursework

Introduction to Machine Learning (COGS118A), Fundamentals of Operating Systems (CS120), Theory of Computation (CS105), Design and Analysis of Algorithms and Systems (CS101), Components and Design of Digital Systems(CS140), Advanced Data Structures (CS100).

Technical Proficiency

Java, Python, JavaScript, C++, C, HTML/CSS, Git, UNIX, Arduino, Raspberry Pi
Personal webpage at http://syueric1102.github.io and robotics blog: http:/syuslab.blogspot.com/

Experience

Cubic Transportation Systems Software Engineering Intern — Summer 2017

- Full stack development of new prototype fare gate and ticketing systems for public transportation.
- Designed multithreaded programs in Java and Python for data collection and gate functionality, created web dashboard with flask/socket.io and javascript, optimized both hardware and software with attention to user experience.

UT Dallas Research Internship — Summer 2015

- Built human control interface for COMEX, a robotic exoskeleton designed to help get paralyzed patients back on their feet, using NI MyRio and Arduino micro-controller.
- Decoded and processed I2C signals.

Siemens Taiwan Summer Internship — Summer 2013

- Programmed smart light switches to switch off during off hours to achieve energy savings.

Awards

Best Use of Artificial Intelligence, UCSD COGS 120 HCI Design — Spring 2017

- Wrote webapp Tonalysis that uses IBM Watson AI emotion analytics and UCSD podcasts to analyze the emotion of professor's lectures to assist students in course selection.
- Used Node.js for backend, Angular.js and bootstrap for frontend, embedded python scripts for webscraping and pulling data and mp3 files.
- Won best use of AI out of 50+ teams.

Best Final Project, UCSD COGS 8 Hands On Computing — Winter 2016

- Built an Arduino beverage dispensing robot that pumps drinks into cups placed on sensors, won best project out of 20+ individuals.

Projects

Homemade 3D Printer — Summer 2016

- Designed and built a homemade 3D Printer from scratch using scavenged recycled motors, power supply, and mechanical parts, with firmware written in C and an Arduino Mega as microcontroller
- Held online workshop and offered printing services for fellow students, created items including laptop stands, models, mechanical part replacements, etc.

Stratos — Fall 2016

- Designed and prototyped a physical weather visualizer using a Raspberry Pi, water pump, LED lights, and mister to simulate forecasted weather conditions such as clouds, rain, thunder, and sun.
- Built front end to pull weather data using simpleWeather.js and communicate with Raspberry Pi backend apache server with PHP.

ZingSort — Spring 2016

- Javascript web app that compares and visualizes runtimes of popular sorting algorithms graphed with Zing-Charts API