Eric Syu
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Education:

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

Related Coursework

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

C++, C, Javascript, Java, ARM, UNIX, Git, Arduino, Raspberry Pi, PHP, HTML/CSS
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.
- Implemented merge functionality for facial recognition database

UT Dallas Research Internship   Summer 2015
- Designed and implemented code to decode and use I2C signals for NI MyRio and Arduino to build a human control interface for COMEX, a robotic exoskeleton designed to help get paralyzed patients back on their feet.

Siemens Taiwan Summer Internship   Summer 2013
- Programmed smart light switches to switch off during off hours to achieve energy savings.
- Worked in projects to help the Taipei 101 building and a local hospital to reach energy saving standards and receive LEED energy saving certification.

Projects

Homemade 3D Printer   http://syuslab.blogspot.com/2016/10/homemade-3d-printer.html
- Designed and built a homemade 3D Printer from scratch using recycled motors and a PSU from an old desktop computer; kept costs extremely low by sourcing recycled parts and materials without compromising quality. Used Arduino Mega as control board with C based Marlin firmware.
- Held online workshop and offered printing services for fellow students, created items including laptop stands, models, mechanical part replacements, etc.

Stratos   https://devpost.com/software/stratos
- 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   http://syueric1102.github.io/ZingSort/
- Javascript web app that compares and visualizes runtimes of popular sorting algorithms graphed with Zing-Charts API

Awards

Best Use of Artificial Intelligence, UCSD COGS 120 HCI Design   2017
- Wrote Node.js webapp Tonalysis that uses IBM Watson emotion analytics and UCSD podcasts to analyze the emotion of professor's lectures to assist students in course selection. Won best use of AI out of 50+ teams.

Best Final Project, UCSD COGS 8 Hands On Computing   2016
- Designed, programmed, and built an Arduino beverage dispensing robot that pumps drinks into cups placed on sensors, won best project out of 20+ individuals.