

Eric Syu

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Education:

B.S, Mathematics-Computer Science
UC San Diego

Expected Graduation Date: June 2018

Related Coursework

Theory of Computation (CS105), Design and Analysis of Algorithms and Systems (CS101), Components and Design of Digital Systems (CS140), Advanced Data Structures (CS100), Object Oriented Design (CS12).

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

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 for fellow university students who are also interested in creating their own 3D printers.
- 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 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.

Leadership

Team Co-Captain, Vex Robotics

2011-2014

- Constructed robots and programmed them to complete certain tasks and to compete in the Vex Robotic Competition, specialized in overseeing mechanical function and design.