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

Related Coursework:
Design and Analysis of Algorithms and Systems, Components and Design of Digital Systems, Advanced Data Structures, Computer Organization and Systems, Object Oriented Design.

Technical Proficiency:
Java, C++, C, ARM, UNIX, Github, Arduino
Created a blog to showcase my robotics projects at 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
- *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:
Binary Search Tree in C++ — https://bitbucket.org/eric_syu/pa1_bst_in_c
- *C++ implementation of binary Search Tree, constructs binary search tree given a large file of actors and returns whether or not a certain actor is present in the tree. Also able to return size and height of BST.*

Huffman Encoder/Decoder C++ — https://bitbucket.org/eric_syu/pa2_huffman
- *Compresses/decompresses text files by using encoding scheme represented by building Huffman Trees.*

Autocompletion in C++ — https://bitbucket.org/eric_syu/pa3_autocomplete
- *Builds a dictionary using multiway tries and allows autocompletion by returning valid words when a part of a word is entered.*

6 Degrees of Kevin Bacon C++ — https://bitbucket.org/eric_syu/pa4_6_degrees
- *C++ implementation of trivia game that looks for shortest connection between Kevin Bacon and another actor in terms of movies they are casted in using shortest path algorithm.*

Awards:
Best Final Project, UCSD COGS8 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.*

FRC Robotics Competition Rookie Award — 2011
- *Collaborated with a team of 10 to create a robot capable of playing basketball*

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.*