Karthik Shanmugam

karthik@karthiks.me

https://github.com/karthik-shanmugam (408)-914-0368

Education

University of California, Berkeley

Expected Graduation: May 2018

B.S. Electrical Engineering and Computer Sciences

Relevant Coursework:

Ongoing: CS188: Artificial Intelligence, CS170: Algorithms, EE16B: Designing Information Devices and Systems II

Completed: CS61C: Machine Structures, CS70: Discrete Math, EE16A: Designing Information Devices and Systems, CS61A: Structure and Interpretation of Computer Programs, CS61B: Data Structures, AP Computer Science A

Skills

Python, Java, Perl, SQL, C, Embedding Programming, Webdev (flask, node.js, html, css, js, etc.)

Experience

Broadcom - Intern

May-August 2015

- •Wrote Perl scripts for chip verification and html report generation
- •Created a website for developers to collaborate on chip testing

Projects

Pioneers in Engineering (Club)

- •Implementing protocol for communication between computer and microcontrollers
- •Wrote firmware to drive servos using microcontroller timers

WICED Mouse

- •Won first place at Broadcom intern hackathon
- •Uses WICED device with an android app to control a computer mouse over the internet POV Display
- •Display built using 15 LEDs and a microcontroller on a rotating protoboard Online Whiteboard
 - •karthiks-whiteboard.herokuapp.com
 - •Collaborative whiteboard built using socket.io and node.is

Memories on Demand

- •Won prize from Intel for best use of their XDK development tool at TreeHacks 2015
- •Android/iPhone app written in html/css/javascript
- •App allows captions to be added to photos, which can be used to look up photos later TI Launchpad CC3200 Kermit the Tweeting Frog
 - •Won prize from Texas Instruments for best use of their MCU board at CalHacks 2014
 - •Stuffed toy augmented with MCU, WiFi, and sensors.
 - •Posts Twitter updates when stimulated (squeezed, flipped, or shown light)

Echola Systems - Intern

June-September 2013

- •Designed circuits for intelligent power strips for safety and power efficiency
- •Implemented plug detection via infrared sensor and voltage reduction via relay
- •Tested embedded 32-bit MCU firmware
- •Soldered, assembled, and tested final products

Abee Industries - Freelance Project

July-September 2014

- •Wrote custom payroll management software to replace paper accounting
- •Used Java (Swing) and SQL(MySQL)