Karthik Shanmugam

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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.js

Memories onDemand
- 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)