Justin Michael Cano

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EDUCATION

Computer Engineering, B.S. *June 2014*
University of California, Riverside, *Riverside, CA*
High School Diploma *June 2009*
Archbishop Riordan High School, *San Francisco, CA*

TECHNICAL SKILLS

- Proficient in many leading programming languages, including C/C++, Java, Python, HTML, and PHP
- Experienced in Object Oriented Programming
- UNIX Administration (Ubuntu and Mac), including user commands, file processing, and installing the LAMP stack
- Server/client socket programming (example code can be found in my BitBucket Software Construction repository)

LEADERSHIP POSITIONS

Executive Board Member (New Member Liaison), *Zeta Phi Rho Fraternity, Theta Chapter* *Sept 2012-Feb 2013*
UC Riverside
Responsibilities include:

- Being the main instructor and mentor for new potential members
- Schedule and oversee all new member events
- Work diligently with all other officers to ensure a smooth transition of new members to become active members

WORK EXPERIENCE

Software Engineer Intern, *JetHead Development* *June 2013-Sept 2013*
San Diego, CA
Responsibilities include:

- Software development in C++ for Set-Top-Box integration services involving sophisticated middleware solutions
- Debugged the company's RVU client application; Issue tracking communication through JIRA
- Worked with Broadcom embedded systems
- 'Board Bring Up', including powering up, mounting, and flashing the board using SSH and/or serial communication

PROJECTS

Intermediate Embedded and Real-Time Systems Final Project:
Home Automation System w/ Smart Alarm Clock, Fall 2013

Using a variety of electronic components, I emulated a home automation system with an alarm clock that doesn't turn off unless it detects movement. The home automation system includes a pass code door lock and drape control system. This project was made possible with an ATmega1286 microprocessor coded entirely in C using the AVR Studio IDE. A Google Doc link to the source and video demonstration is provided for more information:
https://drive.google.com/folderview?id=0B-_AI2C_nEwvTmwxY05uWjVzeHM&usp=sharing

Senior Design Project in Electrical Engineering (Embedded Systems):
Learning Thermostat (Nest Emulation), Fall 2013 – Spring 2014

The topic of study for my Senior Design in Electrical Engineering is the Nest Learning Thermostat, guided by Professor Ping Liang. Working in a team of 2, our goal is to create a system that behaves much like the Nest does: it learns its user's indoor temperature preferences and automatically sets the temperature on the thermostat. Our Nest is a Raspberry Pi embedded system coded in Python, with state machines executing as Python threads. The Pi accepts sensor data gathered by an Arduino Uno microcontroller through wireless serial communication using an XBee standard. The Pi also connects to a MySQL database through an API developed in PHP, which web and mobile applications can use to connect to. Documentation can be found here:
https://bitbucket.org/akambastha/ee-175-building-a-better-nest/wiki/Home

Senior Design Project in Computer Science (Graphics and Electronic Games):
Unity3D Project, Spring 2014

The topic of study for my Senior Design in Computer Science is the Unity3D game engine, guided by Professor Victor Zordan. Working in a team of 4, our goal is to design, create, and implement a 3D graphical game in a 10 week period using Unity. Our game, called "To the Top", is a runner-type game in which the player controls a monkey who's goal is to climb up a series of trees to obtain bananas at the top while avoiding obstacles. We have one game mode where obstacles are procedurally generated and another mode where trees are created using a level builder. We plan to build it for the Android and put it on the Google Play App Store. Project still in progress. Source code and other information can be found on our GitHub repository:
https://github.com/jcvno/ToTheTop

ADDITIONAL ONLINE RESOURCES

GitHub (used for personal projects) – http://www.github.com/jcvno
BitBucket (used for academic and private projects) – http://www.bitbucket.com/jcano001
LinkedIn Profile – http://www.linkedin.com/in/justincano