

# 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*

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## 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)
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## 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
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## 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
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## 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](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 Doctor Victor Zordan. My team of 4 designed, created, and implemented a 3D graphical game in a 10 week period using Unity. Our game "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 while avoiding obstacles to collect the bananas at the top. Our team is currently discussing terms with Dr. Zordan for his team to adopt and further develop our game for production. Due to our terms, we are not allowed to make our original source code public, but more information can be found in our Final Report on Google Drive:

[https://drive.google.com/file/d/0B-\\_AI2C\\_nEwvNWxUaTB5Y0QwazA/edit?usp=sharing](https://drive.google.com/file/d/0B-_AI2C_nEwvNWxUaTB5Y0QwazA/edit?usp=sharing)

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## 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>