

# Gerardo Cano

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## Education

Bachelor of Science in **Electrical Engineering**

The University of Texas at El Paso (UTEP)

**Overall GPA: 3.33/4.0**

Graduation date: December 2015

## Technical Projects

### Arm Assist

02/15- 07/15

- Developed an arm analysis system to help investigate upper limb motor control issues in neuroscience for a professor in the Kinesiology department at UTEP by using stepper motors, LabVIEW graphical user interface, arm cortex microcontroller, and printed circuit board design software Eagle Cadsoft

### Embedded Dance Device

11/14- 12/14

- Worked in a team of three to design an embedded device that is able to instruct on three basic dancing steps using an arm cortex microcontroller, liquid crystal display screen (LCD), accelerometer, and assisted the group in presenting user information to the LCD screen by applying programming skills in the C language

### Function Generator

10/14- 12/14

- Designed, simulated, and validated the functionality of a function generator circuit that produces sine, triangular, and square waves over a range of 20Hz to 20kHz with variable amplitudes from 0 to 10 Volts using Multisim and previous knowledge of electronic circuits

### Electrocardiogram (ECG)

06/14- 7/14

- Designed and tested an ECG circuit that recorded the heart's electrical activity using electrical wires, operational amplifiers (op-amps), resistors, capacitors, an oscilloscope and previous knowledge of electronic circuit theory

## Skills

- Basic knowledge of LabVIEW software
- Working knowledge of Java language and graphical user interface (GUI) using Eclipse IDE
- Bilingual in English and Spanish
- Ability to adapt to various work environments, work independently, participate in teamwork, and solve problems
- Effective organization and communication skills

## Accomplishments

- Achieved design requirements for op-amp circuits by using Multisim to simulate and obtain specific circuit parameters
- Created and implemented programs written in the C language to display user input/output on console window and to communicate to an arm cortex microcontroller
- Analyzed various electronic circuits by applying mathematical techniques
- Acquired knowledge of CadSoft EAGLE to design printed circuit board for an electrocardiogram device
- Assisted in leading a team of engineers to increase productivity of an arm analysis system under time constraints

## Experience

### UTEP Gear Up Tutor, 09/15-12/15

Socorro High School, El Paso, Texas

- Responsible for assisting over 50 high school students on their improvement of algebra and physics skills
- Preparing student logs on a weekly basis for research purposes of the UTEP Gear Up program

### **Lifeguard and Swimming Instructor, 07/13- 01/14**

Bowling Family YMCA, El Paso, TX

- Obtained and exercised cardiopulmonary resuscitation (CPR) techniques
- Helped maintain the pH and chlorine levels of the pool at 7.2 and 3.0 respectively
- Instructed children and adults on swimming techniques
- Maintained awareness at all times to provide safe swimming environment to the general public

### **Awards**

- National Science Foundation Scholarship, 2015