Alberto Li

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EDUCATION

Georgia Institute of Technology, Atlanta GA ***Expected Graduation: December 2018***

- Candidate for Bachelor of Science in Computer Engineering
- GPA: 3.90 / 4.00

EXPERIENCE

Georgia Institute of Technology Electrical & Computer Engineering Department Atlanta, GA ***January 2017 – Present***

Teaching Assistant (TA) for ECE 2031: Digital Design Lab

- Facilitate a rapid-prototyping lab class dominated by FPGA projects by guiding students in their lab assignments
- Assist in administering lab practicals in the class

Florida Power & Light Miami, FL ***May 2016 - August 2016***

Analysis & Resolution Team Intern

- Developed and designed an application using Microsoft Access as the front-end and SQL Server as the back-end for Customer Accounting to increase visibility and reporting capabilities to the process improvement team
- Exercised project management skills, schedule demos and coordinated with the training department to set up job aids and training sessions for the release of the application in Southern and Central Customer Accounting
- Implemented the application incorporating the agile mindset with a strong focus on change management

Opportunity Research Scholars Program at Georgia Institute of Technology Atlanta, GA ***September 2016 – Present***

- Research in a smart sensor packaging system for characterizing sensor-to-body interactions in wearable medical devices
- Develop interface hardware and circuits through system level design to process data and leverage results to feedback systems by exploiting technical knowledge of hardware design, signal processing and embedded systems
- Integrate biofeedback into wearable joint rehabilitation and cardiovascular monitoring systems

PROJECTS

Autonomous Robot that Senses, Tags and Retrieves Objects

- Given a differential drive robot with a caster wheel, sonar transducers, odometers, wheel encoders and equipped with a DE2 board, the objective was for the robot to: sense, tag, and six objects in an 8’ x 12’ rectangular walled-off arena.
- Implemented Simple Computer on Altera FPGA with VHDL to add instructions (such as FETCH, DECODE, XOR, JPOS, JNEG, CALL, RETURN, etc.…) for robot and to support interfacing with hardware through I/O operations
- Implemented wall-guided movement, movement alignment, and path planning algorithms for robustness
- Assembly implementation of traversal algorithm for robot to detect, tag, and retrieve object to home

Mbed Doubly Linked List Implementation of Atari Missile Command Game

- Implemented Atari Missile Command Game in C using doubly linked lists and memory management techniques for basic game functionality and software with Mbed and other hardware including: accelerometer, BJT transistor, LCD screen, debounced push buttons, speaker for gameplay

JavaFX (Mini) Civilization Game

- Created mini version of the turn-based strategy video game “Civilization” with simple AI
- Added option to choose between different civilizations and game modes

LEADERSHIP

GT RoboJackets – Training Assistant ***September 2016 - Present***

- Lead technical training sessions designed for new members in RoboJackets
- Introduce foundational circuit analysis techniques, instrumentation, soldering and crimping to freshman

FIU-ENLACE – ***Technology Lead*** ***June 2011 – July 2013 (Summers)***

- A selective 9 week engineering summer program for middle school and high school students hosted at Florida International University
- Instructed students on how to build a working prototype of a bionic arm with sensors and switches
- Led multiple training sessions and demonstrations to prepare students for the building and competition process

SKILLS

Programming	Java, MATLAB, C, C++, MIPS Assembly, Visual Basic, SQL, HTML, CSS, VPython
Software	Quartus II, EagleCAD, Git, LabVIEW, Logger Pro
Instrumentation	Oscilloscope, Logic Analyzer, Soldering
Languages	English – Native, Spanish – Native, Mandarin Chinese – Basic, Cantonese Chinese – Basic