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: 3.93 / 4.00
- Certifications: Six Sigma Yellow Belt, LabVIEW CLAD

EXPERIENCE

General Electric Oil & Gas – Embedded Systems Summer Intern Minden, NV ***May 2017 – August 2017***

- Developed advanced debugging system for monitoring device to reduce product development time by 3-6 months
- Designed architecture and implemented client-server model design using QNX Real-Time Operating System for a multi-threaded C/C++ Server application and C#/.NET for a Client front-end GUI using Berkeley Sockets API

Florida Power & Light – Software Engineer Summer Intern Miami, FL ***May 2016 - August 2016***

- Designed and developed an application using Visual Basic 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, scheduled 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, impacting a department of over 60 employees

Teaching Assistant (TA) for ECE 2031: Digital Design Lab at Georgia Tech Atlanta, GA ***January 2017 – May 2017***

- Facilitate a rapid-prototyping lab class dominated by FPGA projects by guiding students in their lab assignments
- Aid students in designing and validating digital logic using industry standard oscilloscopes and logic analyzers

Opportunity Research Scholars Program at Georgia Institute of Technology Atlanta, GA ***September 2016 – May 2017***

- Research in smart sensor packaging system for characterizing sensor-to-body interactions in wearable medical devices
- Tested and experimented with different sensor materials to conclude feasibility of detecting a biomedical sensor on a human body
- Implemented vibrational system using accelerometers and bone transducers to generate a heatmap that would predict sensor location as a proof of concept

PROJECTS

Computer Vision Object Classifier ***January 2017 – May 2017***

- Implemented k-means clustering algorithm to classify a sample of 90 images into faces or cars with 80% accuracy
- Optimized using bag of words spatial pyramid matching algorithm to increase accuracy of classifier to 85% accuracy

Pipelined LC-3b Microarchitecture Simulator ***January 2017 – May 2017***

- Implemented an LC-3b ISA and microarchitecture simulator with dependency checking and an L1 cache, L2 cache, and DRAM with multiple replacement policies
- Added additional functionality with a two-bit counter and two-level branch predictor with an average 88% accuracy

Autonomous Robot for Search and Retrieval Competition ***August 2016 – December 2016***

- 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 searching objects

LEADERSHIP

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

- Lead technical training sessions designed for new members in RoboJackets
- Lectured about fundamental circuit analysis techniques, instrumentation, and practical skills to new members

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

- Instructed students on how to build a working prototype of a bionic arms with sensors for a selective nine week engineering summer program for middle school and high school students hosted at Florida International University

SKILLS

Programming	Java, MATLAB, C, C++, C#, .NET, Assembly, VBA, SQL, HTML, CSS, Python
Software	Quartus II, EagleCAD, Git, LabVIEW, Logger Pro, QNX Momentics, Biopac
Instrumentation	Oscilloscope, Logic Analyzer, Soldering, Signal Analyzer
Languages	English – Native, Spanish – Native, Mandarin Chinese – Basic, Cantonese Chinese – Basic