Sami Suteria

(469) 387-5241 | sami.suteria@gmail.com

Objective

Seeking a challenging position in Product Development (Software and Hardware), Rapid Prototyping, Manufacturing, and/or Engineering Logistics.

Education

Texas Tech University, Lubbock, Texas — Expected Graduation: December 2014
Bachelor of Science, Computer Engineering

Engineering Projects

Multi-Purpose Computer Numerical Controlled Machine | Current

- Designing a multipurpose CNC machine with 30-micron resolution for milling circuit boards
- Developing the interpreter for parsing the GCode on a TI Tiva C-Series ARM micro controller
- Developing backend in Node.JS that converts Eagle CAD board files to GCode

Phase Locked Loop Based Local Oscillator | Summer 2014

- Designed a PLL LO using a TI MSP430 micro controller to control RF circuits with a VCO (voltage controlled oscillator) to adjust output frequency within desired range
- Designed and constructed a circuit board using Eagle CAD with considerations for radio frequency range

Autonomous Tank Robot with Light and Metal Detectors | Fall 2013

- Designed and implemented an autonomous tank that locates and moves toward a 1kHz LED beacon while detecting and moving steel washers from its path

Technical Skills

Languages: C, Verilog, Objective C, Java, Javascript, PHP, MySQL, HTML5/CSS3
Tools: Xcode, Xilinx ISE, Eagle CAD, Adobe Creative Suite (Photoshop, InDesign, Flash)

Work Experience

iOS Developer **Standards Design Group** | Apr 2014 – Current

- Developing an iPhone version of SDG's Window Glass Design program
- Implementing proprietary and ASTM standards for calculating glass load resistance
- Creating custom interface and animations using the Facebook POP animation library

Developer/Cofounder **Limerick Design** | Mar 2012 – Current

- Developed and released an iPhone app for Texas Tech College of Media and Communications
  - App involved: XML Parsing, JS injection, audio streaming, menu animations and optimization
- Works currently in production: FoodForks, a recipe sharing app based on github-style version control; Habit, an app that helps with tracking personal behaviors
- Portfolio can be seen at: www.limerickdesign.com/portfolio

UX/IA Intern **USAA** | Summer 2011

- Worked in Product Delivery to design, test, and implement code for a life insurance web app
- Prototyped iPad and Android apps for marketing to reach a wider audience

Systems Engineer Intern **Northrop Grumman** | May 2009 – Nov 2009

- Redesigned customer facing website using Wordpress and CakePHP to increase usability and security
- Operated within military guidelines for security of access control
- Worked with Perl scripts for EPODS (mapping software) to retrieve maps from external servers

Awards and Activities

First Place – Texas Tech University App-a-thon | 2014

- Developed an iPhone app within 24 hours with custom animations that links into data sets for TTU's Study Abroad program

First Place – Texas Tech University App-a-thon | 2013

- Developed an iPhone app with user login, micro blogging, geotagging/caching, and push notifications in 24 hours. Theme: Humans vs Zombies (a game played by a large group of students on campus multiple times a year)

Eagle Scout, Boy Scouts of America, Dallas, Texas | Aug 2004

- Led over 20 scouts to build a mini-dam for a canoe & kayak launch site at a local river and fund-raised over $5000

Work Experience Continued

Web Developer **TTUISD** | Sept 2012 - Jun 2013

- Developed student-facing administrative web apps.
- Converted snail-mail/phone processes to automated web based and integrated with existing site.

iOS Developer **Dry River Media** | Oct 2011 – Jan 2012

- Developed iPad apps based on given designs. Used Cocos2D (game engine) for sprite animation.

Designer **GAMA** | Jan 2010 – May 2010

- Designed & distributed the 2010 catalog of over 5800 items.
- Responsible for various design needs including: website updates, sales flyers, & photography of new items.
- Customized/updated Windows Mobile 5 interface for Metrologic Barcode Scanners.

Relevant Classes

- Technology Start Up Lab
- Digital System/Logic Design
- Electromagnetic Theory
- Systems Programming (UNIX)
- Linear System Analysis
- Communication Systems
- Software Engineering (I & II)
- Microcontrollers

Engineering Projects (All)

Multi-Purpose CNC Machine | Fall 2014 - Current

Designed a multipurpose Computer Numerical Controlled (CNC) machine with 30 micron resolution for milling circuit board. Custom GCode interpretation was done on a TI Tiva C-Series ARM micro controller. Custom backend written in Node.JS that converted Eagle board files to GCode.

Phase Locked Loop Based Local Oscillator | Summer 2014

Designed a PLL LO for use in a multimode transceiver. A TI MSP430 micro controller was used along with a keypad and display for user I/O and to control RF circuits with a VCO (voltage controlled oscillator) to adjust output frequency. Designed for the amateur band range (19-20.7 MHz). Circuit board designed with Eagle with considerations for radio frequency range.

Sound Reactive LED Stick | Spring 2014

Device would detect ambient sounds and use analog filters to react to different frequencies (Bass, Midrange, Treble). AVR micro controller with built in ADC used to turn signals into various patterns for LEDs. PCB was designed and manufactured for final product.

Automated Drink Machine | Spring 2014

Machine mixes measured amounts of various liquids and returns a cup to the user. MSP430 micro controller was used to control servos in 3D printed 3-axis arm and solenoid valves. A Raspberry Pi computer was used for a wireless user interface (accessed via smartphone) and sent commands to the micro controller via UART.

Autonomous Tank Robot with Light and Metal Detectors | Fall 2013

Designed and implemented an autonomous tank that could locate and move toward a 1kHz LED beacon while detecting and moving steel washers from its path by using metal proximity sensors and an electromagnet on a servo mounted arm.