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EDUCATION

M.S. in Computer Science at Georgia Institute of Technology
Concentration: **Human Computer Interaction**

(projected grad)
from August 2014 to December 2015
GPA: 4.00

B.S. in Computer Science at Georgia Institute of Technology
Concentration: **Devices & Networking**

from August 2010 to May 2013
GPA: 3.67

SKILLS (* = familiar with)

Programming Languages (and APIs)

Objective C (iOS)
Java (Android)
C# (Windows Store/Phone)
C*
Python

Additional Languages

SQL
JavaScript*
HTML/CSS
PHP*
Arduino

Other

OpenSSL Crypto Lib

Design Tools
Photoshop/InDesign
Maya*

Spoken Languages

English
Hindi
Urdu

PROFESSIONAL EXPERIENCE

Co-Founder and Developer from January 2014 to Present
at Spottr, Atlanta, GA

- **Developed iOS & Android Applications** to track data usage on mobile devices
- Continuously improved development processes, codebase, and the product (from a development and a business standpoint)

Mobile Developer from May 2013 to July 2014
at AirWatch, Atlanta, GA

- **Solely developed the AirWatch Browser** for Windows 8 and Windows Phone 8 platforms
- **Designed the AirWatch Framework and SDK** for the Windows 8 and Windows Phone 8 Platform
- **Implemented secure app to app interaction framework** on Windows to leverage Single Sign On
- Developed the iOS Email Client with the iOS Email Client Team at AirWatch
- **Built a secure email solution (S/MIME)** and integrated it with the AirWatch iOS Email Client
- **Worked with 2013-2014 college recruiting team.** Recruited at career fairs and presented at info sessions.
- Created knowledge base articles internally to ease process difficulties within the development team
- Managed and set processes for code reviews for the iOS Email Client team at AirWatch

Engineering Intern from May 2012 to August 2012
at Pegasystems, Cambridge, MA

- Developed software to export business/financial data and integrated it with Pega's BPM software (PRPC)
- **Researched and implemented** solutions for **server-side data export** using FusionCharts
- Improved testing procedures at Pega by developing **automated test scripts in Eggplant**

Undergraduate Assistant from August 2009 to May 2010
at Georgia State University, Atlanta, GA

- **Designed and maintained TCPP Website using Drupal** (tcpp.cs.gsu.edu)
- Created documents/books in LaTeX
- Developed and managed the DiMoS Website

PUBLICATIONS

Order Picking Assisted by Head-Up Display, Cart-Mounted Display, Light, and Paper Pick List ISWC 2014 (International Symposium on Wearable Computers)

Anhong Guo, Shashank Raghu, Xuwen Xie, Saad Ismail, Xiaohui Luo, Joseph Simoneau, Scott Gilliland, Hannes Baumann, Caleb Southern, Thad Starner. "A Comparison of Order Picking Assisted by Head-Up Display (HUD), Cart-Mounted Display (CMD), Light, and Paper Pick List"

RESEARCH EXPERIENCE & PROJECTS

MagPen

role Researcher/Developer

languages/tools Java, Android SDK, Hardware

about A research project seeking to simplify the process of digitizing notes. This was achieved by using a mobile phone and an external magnet. The mobile phone can track the external magnet and determine its position. This external magnet can be placed on any writing instrument, which then can be used to digitize notes.

- Researched mapping algorithms to determine the absolute location of the magnet around the phone.
- Built a pen shaped electromagnet with a push down button for added interaction.
- Developed an android drawing/note taking application to integrate with the MagPen (magnet pen).

BicycleVis

role Developer

languages/tools Javascript, D3, HTML, CSS

about A course project that visualizes bicycle and vehicle fatality data. The visualization consisted of an interactive data matrix and detailed/overview line graphs.

Night Owl

role Researcher/Developer

languages/tools Arduino, C++, C, JS, D3, Linux

about A research project seeking to better monitor sleep in healthcare settings. This was achieved by using a Kinect and it's depth data to determine certain factors about sleep.

- Researched various methods to integrate Kinect with single board computers (e.g. Raspberry Pi)
- Analyzed the Kinect depth data to detect motion during sleep
- Built a "sleep motion detector" that lights up LED's using the PC, Kinect and Arduino

Order Picking

role Researcher/Developer

languages/tools Java, C, Arduino, Python, Circuit Boards

about This research project's main goal is to compare various ways of picking items in warehouses. Four different methods were analyzed: heads up display (SV6 - similar to Google Glass), cart-mounted display (tablet), light (custom circuit boards with 9 segment displays) and paper (old-fashioned paper).

- Developed software to communicate with the custom circuit boards
- Integrated the software with the custom circuit boards to talk over a local network connection
- Built a custom warehouse setting using common objects (shelves, bins, etc) and to conduct user studies in
- Designed and conducted user studies to compare the various methods of order picking

Radio Frequency Energy Harvesting

role Developer

languages/tools Arduino, Circuit Boards

about A class/research project about harvesting energy from AM radio waves. This was an experimental project to determine whether this was possible. Spoiler: it was; however, it was not efficient. We were able to light up an LED for a few seconds after harvesting energy for a few hours.

- Researched various methods of harvesting energy (e.g. Cockcroft Walton Voltage Multiplier)
- Built the energy harvester using an AM Radio Antenna and other electronic components

MRS (Mobile Response System)

role Developer

languages/tools HTML5, jQuery, PHP, GTMob APIs

about A mobile web application that replaces the current system of answering questions in class. It allows professors to post questions and students to answer them in class. This system is integrated with Georgia Tech through GT MOB.

Assassins (NFC Based Android Game)

role Developer

languages/tools Java, Android SDK

about An android application to gain a better understanding of mobile and contextual computing. This project has a unique twist on the old school game of tag. It leverages Google Maps, GPS, and the NFC chip to determine players location and simulate "tagging" by tapping phones together.

RESEARCH EXPERIENCE & PROJECTS

Catereye (Electronic Patient Record)

role Project Manager, Developer

languages/tools Open Data Kit (ODK)

about A course project (developed with Emory) that attempts to build an electronic patient record tool using OpenData Kit. This tool allows clinics to record and view patient data from an Android app and a web interface.

Medical Viewer for Emory

role Client Liason, Developer, SCRUM Master

languages/tools Java, Android SDK, PHP, SQL

about A capstone project that involves working with Emory to visualize patient vitals. An android app was developed to display and annotate EKG data.

CourseBuzz

role Project Manager, Developer

languages/tools Java, Android SDK, PHP, SQL

about An android and web application that displays course information to students. This is retrieved by scraping and parsing data using HTML and PHP. In addition, a server was utilized to send notifications to devices using GCM when a seat has opened up.

EXTRACURRICULAR ACTIVITIES/INTERESTS

Volunteering at Food Banks/Homeless Shelters, **Building Lego Models**, Working with **Non-Profit and Religious Organizations** to **Integrate Technology**, **Experimenting/Researching** With New Technologies