Wootae (Alan) Song

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EDUCATION

Georgia Institute of Technology, Atlanta, GA — Expected graduation: Spring 2018
Candidate, B.S. Computer Engineering — Major GPA: **4.0**, Overall GPA: **3.95**
Candidate, B.S/M.S. Computer Engineering — Starting: Fall 2018 Expected Graduation: Spring 2019

Korea Advanced Institute of Science and Technology, Korea — August 2015 – December 2016
Dual Degree Program — GPA: **3.89**

EXPERIENCE

JIRANSOFT, Daejeon, Korea — Summer 2016
Software Development Intern
- Developed a program that detects files that are attached in emails, messenger apps, and other programs using windows API hooking for data loss prevention solution.
- Used: Microsoft Visual Studio, C#, Windows Hooks

Vertically Integrated Projects Program: RoboSense — Spring 2017
- Worked on OCR using Matlab that will navigate drones. (https://www.youtube.com/playlist?list=PLZ7eatMO2Tz4HZa39gt_bW5jkGSYNGjE8)
- Used: MATLAB

Embedded Systems Design Undergraduate TA — Fall 2017 ~
Paid Undergraduate TA
- Run Georgia Tech's ECE 4180, Embedded Systems Design, laboratory and help students with the lab.
- Used: mbed LPC 1768, C++

PROJECTS

Real Time Laundry — Spring 2016
- Developed a system that detects if any laundry machine is available in a laundry room and sends the information to the server. (https://drive.google.com/drive/u/0/folders/0B5Srv1xsMt9-Yk5PTVhNYXZJU3c)
- Used: MATLAB, HTML, CSS, JavaScript, Flask, Linux, C, Socket Programming

Exploration Robot — Spring 2016
- Developed an exploration robot using a BeagleBone that is controlled with an Xbox controller and sends various information such as video, temperatures, and other to PC over TCP/IP. (https://www.youtube.com/playlist?list=PLZ7eatMO2Tz6ixhHuJ9jzPPDc4QzSH5K0)
- Used: BeagleBone, Linux, C, C++, Multithreaded Programming, Socket Programming (Video), SDL2

Smart Picture Frame — Spring 2017
- Developed an IoT device that you can speak to it to take pictures and display them using Amazon Echo Dot and Raspberry Pi. (https://www.youtube.com/watch?v=sILC0R2KJP8)
- Used: Raspberry Pi 3, Echo Dot, Alexa Skills, AWS Lambda, Node.js, AWS IoT, Node-RED, C++, SDL, Multithreaded Programming, JavaScript, JSON, MQTT

Smart Vanity — Spring 2018
- Developing an Android apps for our Senior Design project. Topics covered are widgets, video, database (https://github.com/alansong95/SmartVanity)
- Used: Android, Firebase

RELEVANT COURSES

Electronics Design Lab.: — Spring 2016
- Designed a RoboCam – robotic camera as a proto-typical embedded system, composed of cross-development system, light control, robot, WiFi, photo capture, and video streaming

Embedded Systems: — Fall 2016
- Introduced to expandable ARM processor-based single board computer, open-source embedded Linux operating system, PC-based software development environment on Linux, digital and analog interface techniques, and various device drivers.

Embedded Systems Design: — Spring 2017
- Introduced to Processors, chipsets, busses, I/O devices for high-end embedded systems, embedded operating systems, device drivers, and applications for embedded systems.

Embedded Computer Systems: — Fall 2017
- Introduced to algorithms and methodologies for the design of real-time, low-power embedded computing systems.