Andrew Li

Canadian Citizen, US Permanent Resident

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Education

Imperial College London 2014 ~ 2018

MEng Electronic and Information Engineering

Related Courses

Embedded Systems, Networks and Distributed Systems, Machine Learning, Operating Systems, Computer Architecture, Signals and Linear Systems, Databases, Computer Vision, Language Processors, Control Engineering, Robotics

Activities & Positions

IC Robotics Society • IC EuroBot • Student Ambassador Group • Imperial Immortals AFC, Linebacker

Work Experience

Borqs: Embedded Software Engineering Intern (Kernel Development)

JULY 2016 – OCTOBER 2016, BEIJING

- Worked with the In-Vehicle Infotainment (IVI) team, implementing a driver to interface the IVI touch screen component (using Amtel TP technology) to the main IVI system CPU (using I.MX6 dual-lite chipset running Android 4.4) via I2C.
- Read and understood documentation on the Amtel TP microcontroller (MXT641t) and how to integrate the touchscreen driver.
- Utilised Gerrit version control system to manage the Android 4.4 code base.
- Used C to integrate and debug the touchscreen driver on the Borqs IVI system using Mantis for bug reporting and tracking.

Skills

Languages & Technologies:
C/C++, Java, MATLAB, Python, DBs (MySQL, PostgreSQL), Web frameworks (HTML, CSS)

Hardware:
Altera Quartus (schematic design), CircuitMaker, Catapult C, Verilog, VHDL

Design:
Adobe Suite (Photoshop, Illustrator, In-Design), AutoCAD

Projects

IBM IT Architecture Design Challenge SUMMER 2016

- Worked with a team to plan and design a renewed systems architecture framework based on a real-world client (UK Post office) specification, integrating operational services to IBM's Bluemix cloud infrastructure.

C90 to MIPS Compiler SPRING 2016

- Developed a C to MIPS compiler (according to ANSI standard) – architecture involved building the lexer and parser (with flex/bison technologies), syntax tree generator and code-gen.
- Developed tools to build and test the various components of the compiler.

ARM mbed touch-switch microcontroller SPRING 2016

- Designed a PCB interfacing an ARM mbed microcontroller with 4 capacitive touch panel analog circuit and LED display
- Implemented a novel statistical method to extrapolate and extract fine-precision finger position and movement as input along the 4 capacitive touch panels.
- Project earned the most innovative interface for the implementation of the precision touch input.

FPGA Real Time Image Visualization SPRING 2015

- Using an Altera DE0 Cyclone IV FPGA board with memory constraints, designed and implemented an object detection system in real time.
- The system was designed through HLS of Catapult C code, and implemented and time tested through Altera Quartus II software.

Awards & Honors

- Imperial Plus Volunteer Certificate 2015
- President's Undergraduate Scholarship 2014
- Clarkson Engineering Award 2013
- Duke of Edinburgh's International Award 2013