Andrew Matthew Xia

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Languages
- C, C++, Python, VHDL, Java
- HTML, CSS, XML/KML

Hardware
- Intel MAX10 FPGAs
- STM32 Microcontrollers
- Arduino

Tools and IDEs
- Altera Quartus, Cadence Allegro OrCAD
- Android Studio, Keil uVision, Eclipse
- QGIS, Git, Bash, PowerShell

EXPERIENCE

Segway Robotics
Embedded Engineering Intern   **May – July 2017**
Worked with the electrical engineering team on the Loomo personal robot project
- Went through entire **PCB development** cycle from schematic drawing to production with **Cadence**
- Programmed STM32 Microcontrollers from scratch with **Embedded-C** and piloted the use of STM32CubeMX software to shorten development time within the team
- Acquainted with **Agile Development** with **JIRA**
- Shortened infrared sensor testing times in half by rewriting and debugging old microcontroller code

Peter Julian, Member of Parliament
Constituency Intern   **July 2014 – June 2016**
Assisted with the day-to-day and database technical operations of the constituency office
- Demonstrated exemplary writing and judgement skills by drafting official letters to Ministers on behalf of the Member
- Maintained constituent databases and used mapping technology to shorten planning time for outreach canvassing

PROJECTS

Election 2019 Local Mapping Script
Python, KML, QGIS, Google Maps JavaScript API
www.github.com/a2xia/2019ElectionsMaps
A data visualization tool for local campaigns to see poll-by-poll voting results from the 2015 Federal Election in Google Maps to prepare for the 2019 Campaign. Uses Python to process voting results from CSV files and poll boundaries from shapefiles to generate a KML file for use in mapping services.

Shake-2048! Sensor-Based Android Game
Java, Android Studio
www.github.com/a2xia/Shake-2048
Part of a team of three that created our take on the popular 2048 game – instead of swiping to move the blocks, motion sensors detected device movement (shakes) for gameplay.