

# Software Engineer

## **EXPERIENCE**

## Firefox: Media Playback

- Develop cross-platform audio library(Windows, OSX, Linux)
- Implement 5.1, 7.1 surround sounds support in Firefox
- · Seamless looping

## Firefox: Device selection UI on mobile and desktop

- Build device selection UI when connecting to Presentation API devices(e.g. Chromecast)
- Implement backend browser API for UI modules

#### Firefox OS TV: Remote Control from Android to TV

- Build remote-control service on Firefox OS TV
- Design a panel on Firefox Android to control TV
- Introduce J-PAKE over TLS to establish a secure connection channel

## Firefox OS Feature Phone: Physical Keyboard

- Design an architecture to route hardware keyboard signals to input-method-editor
- Enable simulation of the hardware events in testing framework

## **Firefox OS: Processes Management**

- Manage lifetime and permissions of the processes
- Enable permission configuration in testing framework

## Full-Stack Web Development / Product Design

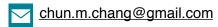
- Develop web services to give suggestions about course selections for students
- Build online dating services to pair people with similar interests
- Lead a team to develop web services and reach 50000+ members in three month. They were reported by TV and magazine.

## **IoT Localization: Particle Filter for Data Assimilation**

- Design a math model to estimate the devices' location by calculating the inertial sensor data and a known map, without any infrastructure like GPS or WiFi
- · Build a server to collect sensor data

#### Sensor Network: SoC Firmware and iOS App

- Write drivers for peripheral interfaces(UART, SPI, I<sup>2</sup>C) to read data from various sensors on TI CC2540
- Build an iPhone app to receive sensor data via Bluetooth 4.0





http://chunminchang.github.io/

#### **EDUCATION**

#### Master's degree, Computer Science

National Tsing-Hua University, Taiwan 2012-2014, Embedded Platform Lab, **Thesis**: Cooperative Tracking using Encounter Information by Particle Filtering (advised by Prof. Pai H.Chou)

#### **Bachelor's degree, Computer Science**

National Tsing-Hua University, Taiwan 2008-2012, **Third Prize**, Computer Science Senior Project Contest: ThirdEye - Remote-controllable WiFi webcam car

### SUMMARY

Knowledge from hardware to software with mathematical skills to research, analyze, solve problems and complete projects. Self-motivated character with high energy and good communication skills to collaborate in team.

#### CAREER OBJECTIVE

A professional software engineer with scientific background knowledge to invent and innovate technology to improve human life.

## ADDITIONAL INFO

I have a busking permit for singing and playing guitar on the streets. I hate suits and I like jeans.