Chih-Wei Fang

chihweif@andrew.cmu.edu ⋄ (412) 726-3250 ⋄ www.linkedin.com/in/cwfang ⋄ www.cwfang.me

Education

Carnegie Mellon University	Pittsburgh, PA
Master of Science in Mobile and IoT Engineering	GPA: 4.0/4.0 ⋄ Expected: Dec. 2021
National Taiwan University	Taipei, Taiwan
Bachelor of Science in Electrical Engineering	GPA: 3.83/4.0 ⋄ Jun. 2020
Karlsruhe Institute of Technology	Karlsruhe, Germany
Exchange Program in Electrical Engineering and Information Technology	GPA: 4.0/4.0 ⋄ Aug. 2019

Relevant Coursework

Introduction to Computer Systems	Introduction to Computer Networks
Data Structure and Programming	Intelligent Devices and Cloud Computing
Special Topics on Internet of Things	Database Management System
Embedded System Engineering Lab	Machine Learning and Having it Deep and Structured

Skills

Programming Languages: C/C++, C#, Python, Java, JavaScript, Kotlin, Swift, SQL, Verilog

Framework / Tools / Other: React, Redux, React Native, MongoDB, Docker, Shell scripting, Arduino prototyping, PCB design, Network administration

Work Experience

BravoAI Co., Ltd.	Taipei, Taiwan
Software Development Engineer	Jun. 2018 – Aug. 2020

- Delivered custom engineered insurance application and claim automation solution for largest companies in Taiwan
- Responsible for 3 projects requiring production-grade reliable code serving more than 2000 users per day
- Mentored 2 software engineering interns in a project of adding speech recognition feature to conference video cameras

Dopod International Co., Ltd.	Taipei, Taiwan
Software Engineering Intern	Jul. 2013 – Aug. 2013

- Developed a lock screen application which shows notifications to user and allows user to interact using hand gestures
- Discovered 4 software vulnerabilities in operating system installed in educational tablets used by 10000 students
- Collaborated with product manager and user interface designers on the project development process

Project Experience

University Campus Hide and Seek	Jun. 2018 – Aug. 2018

- Designed a game for 150 high school students to explore the electrical engineering department using RFID tags and sensors hidden throughout university campus
- Implemented game hardware using Espressif ESP8266 SoC, RFID tag readers and custom designed PCB
- Developed game server software with Node.js, MongoDB and utilized DNS tunneling technique to enable client-server communication through campus wireless access points

Light Dance Show	Jan. 2018 – Mar. 2018

- Designed hardware and software architecture for student light dance show with over 300 audiences
- Engineered dance outfit using MediaTek MT7688 modules, PCA9685 PWM controllers and electroluminescent wires
- Programmed the hardware using C++ with a focus on real time communication and software reliability

Garbage Disposal in Taipei	Oct. 2017 – Feb. 2018

- Collaborated with Industrial Design students from Germany and analyzed waste problems in Taipei
- Researched on an autonomous waste collection vehicle able to calculate its route basing on user demand
- Carried out a waste container prototype able to separate different types of waste using machine learning techniques

Leadership

General Director, High School Campus Network Management Team	Jul. 2013 – Jun. 2014

- Designed campus wireless network infrastructure and carried out installation of 150 access points serving 2500 users
- Collaborated with art specialized class to remodel school website using modern web techniques
- Led a team of 10 members to ensure uptime of campus network infrastructure and services

Awards and Honors

Baden-Württemberg Stipendium Scholarship, Baden-Württemberg Stiftung	Oct. 2018 – Apr. 2019
First Prize (Sponsored by ST Microelectronics) / Best AI, MakeNTU Makerthon	Apr. 2018
Most Viable Product (Sponsored by ARM), MakeNTU Makerthon	Feb. 2017