Shih-Cheng Peng

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Education

National Chiao Tung University *Hsinchu City, Taiwan*

BACHELOR OF SCIENCE IN COMPUTER SCIENCE (**GPA 3.99/4.3**) *Sep. 2017 - June 2021*

- NCTU IEEE Eta Kappa Nu Honor Society Candidate
- Dean's list given by NCTU, 2018

Work Experience

Intel Corporation-CCG Wireless Team

SOFTWARE ENGINEER INTERN | C++, C#, PYTHON *July 2020 – June 2021*

- **Bluetooth 5.2 Advertisement Demonstration**
  - Implemented the latest BT LE Extended Advertising with 2x speed, 4x range, and 8x data size compared to Bluetooth 4.
  - Combined Windows API and customized HCI commands as sender/receiver and using Ellisys and BTVS to analyze data transferring.
- **Building MicroAPITester for PIE**
  - Implemented the SDK APIs in a dynamic link library (DLL) for PIE (Intel® PROSet/Wireless WiFi Software extension).
  - Designed a user-level application to communicate with Intel® Dual Band Wireless-AC and Intel® Wireless-AC/AX products.

Automatic Temperature Detection and Facial Recognition System

RESEARCH ASSISTANT | HIGH SPEED COMMUNICATION & COMPUTING LABORATORY | LINUX, PYTHON, OPENCV, ROS *July 2019 - June 2020*

- Combined IoT and Network to create an abnormal temperature warning system.
- Using JetBot performs the object following, OpenCV as a tracking system, and IoTTalk as a communication platform.

Project & Course Experience

Real Estate Market Query System

INTRODUCTION TO DATABASE SYSTEM | MYSQL, PYTHON, JS, PHP, HTML *Spring 2020*

- Created a website where users could visualize trends in the housing market by looking at real-estate transaction history.
- Using Apache Server to execute PHP and interact with users by providing HTML and receiving users' input.

Battleship Game with IoT

DESIGN AND IMPLEMENT OF IOT APPLICATIONS | JS, JQUERY, CSS, HTML, PYTHON *Spring 2020*

- Created a game combining IoT and Battleship.
- Two players take turns guessing the position of the opponent's warship through IoTTalk Platform with low latency.

IoTTalk Application Design and Implementation / Synopsys-ARC IOTDK

DESIGN AND IMPLEMENT OF IOT APPLICATIONS, INTERNET OF THINGS BASIC DESIGN AND IMPLEMENTATION | C, PYTHON, JS *Spring 2020*

- Implemented IoT peripheral sensor and wireless communication device in ESP8266, Raspberry Pi, and ARC IOTDK embedded board.

Compiler Design

INTRO. TO COMPILER DESIGN | C++ *Full 2019*

- Using lex and yacc to build a scanner and parser to finally generating RISC-V assembly.
- Implementing Visitor Pattern to construct an abstract syntax tree (AST).

Robot Operating System (ROS 1 & 2)

TAOYUAN ROS SUMMER COURSE AND COMPETITION| PYTHON *Aug. 2019*

- Designed system for operating robots with multiple models and implemented SLAM and automatic navigation system for robots.

Leadership & Extracurricular Activities

NCTU Computer Science Inheritance Plan Vice-President *2018*

- Along with NCTU alumni association and fellow Computer Science students, invited other former students in the industry to serve as "parents" for students and assist in future planning for the "families".

Southern Taiwan Returning Home Service Minister-of-Instructor-Department *2019*

- Accompany children who live in remote rural areas in the southern Taiwan; giving back to society and practicing the ideal of serving society.