Yu-Cheng Deng

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CAREER OBJECTIVE

A self-motivated team player with 2+ years of solid software development experiences, specializing in programming with Python and MATLAB. Currently seeking full-time job opportunities to fully exploit my training and skills, while making a significant contribution to the success of the company.

EDUCATION

University of California, Davis — Davis, CA, USA
M.S. in Electrical and Computer Engineering (ECE), Overall GPA: 3.88/4.00 — Sep. 2018 – Jun. 2020

National Taipei University of Technology — Taipei, Taiwan
B.S. in Electrical Engineering (EE) — Sep. 2014 – Jun. 2018

SKILLS

- **Language Skills:** Mandarin (native), English (proficient)
- **Programming Languages:** Python, MATLAB/Simulink, C/C++, C++/CLI, R, HTML/CSS, JavaScript
- **Software Development:** Image Processing, Computer Vision, Object-oriented Programming, Machine Learning
- **Technical Skillset:** Git, Bash (Shell Scripting), Open CV, SQL, .NET, Linux (Ubuntu), Windows, macOS

WORK EXPERIENCE

Wintec Industries — Newark, CA, USA
Junior Test Engineer — Jun. 2019 – Aug. 2019

- Created a File Transfer Protocol (**FTP**) Server in **Linux** to which the operating machines can transfer the files
- Built the script written in **C++/CLI** to achieve the automatic file transfer through FTP
- Constructed a user-friendly **Graphical User Interface** (GUI) for the production line operators to use FTP
- Used **Computer Vision** approach for calculating the productivity of the Printed Circuit Board (PCB) and monitoring the production lines by programming **Python** and **Open CV** into **Raspberry Pi 4** integrated with **Pi camera**

RESEARCH EXPERIENCE

Graduate Researcher (Master's Research) — Apr. 2019 - May. 2020

- Worked on "improved visualization of fiber-based fluorescence lifetime imaging (FLIm) in a Clinical Setting" research
- Applied algorithms and **image processing** to FLIm data visualization for the classification of tumors
- Proposed a robust algorithm for **real-time visualization** for tumor delineation based on the clinical applications
- Constructed a **Graphical User Interface** (GUI) tool in **MATLAB** for FLIm data visualization for research purposes

Coursework Project- Improvement in Reinforcement Learning for Frogger Game — Jan. 2019 - Mar. 2019

- Regenerated the arcade game "Frogger game" using PyGame in **Python**
- Applied the **reinforcement learning** (Q-learning) to the Frogger game and analyze the performance
- Exploited nearest neighbor interpolation approach to improve the performance of the Q-learning for the Frogger game

Coursework Project- Human Following Robot Based on Reactive Algorithm for Safe Navigation — Jan. 2019 - Mar. 2019

- Utilized **Simulink** toolbox and **MATLAB** script to simulate the human following robot (Pioneer 3-DX) and its sensors
- Constructed a simulation environment and formulated performance analysis strategies
- Applied biological obstacle-avoidance algorithm to the robot and analyzed it in the synthetic environment

Senior Project- Care System for Pressure Ulcer Patients — Jun. 2017 - Dec. 2017

- Exploited the Arduino sensors to measure the major factors in causing ulcers (humidity, temperature, pressure, etc.)
- Employed Arduino Wi-Fi to transmit the sensor data to IoT platforms, ThingSpeak (Web) and BLYNK (Android App)
- Used PHP with MySQL to transmit the sensor data to the database, creating webpage for the Server and Client

LEADERSHIP EXPERIENCE

Vice President - Taiwanese Graduate Student Association (TGSA) at UC Davis — Jun. 2019 - Jun. 2020

Chief Executive - Student Union of EE Dept. at National Taipei University of Technology — Sep. 2015 - Dec. 2016