

Yu-Cheng Deng

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EDUCATION

- University of California, Davis Sep. 2018 - Jun. 2020 (Expected)
 - **Master of Science in Electrical and Computer Engineering (ECE)**
 - GPA Overall: 3.88/4.00
- National Taipei University of Technology (NTUT), Taiwan Sep. 2014 - Jun. 2018
 - **Bachelor of Science in Electrical Engineering (EE)**

WORK EXPERIENCE

- Wintec Industries Newark, CA Jun. 2019 - Aug. 2019
 - Build a File Transfer Protocol (FTP) Server for productions lines for transmitting the log files from the machines
 - Write **C++/CLI** script to build a user-friendly Graphical User Interface (GUI) for the operators to use FTP
 - Use **Raspberry Pi 4** and **Pi camera** using **Open CV** and Moving-Object Surveillance approach in **Python** to create a tool for calculating the productivity of Printed Circuit Board (PCB) and monitoring the production line.

RESEARCH EXPERIENCE

- University of California, Davis Davis, CA Apr. 2019 - Present
 - **Master Research-** Improved Visualization of Fiber-based Fluorescence Lifetime Imaging in a Clinical Setting
 - Apply algorithms to visualize fluorescence lifetime imaging (FLIm) data
 - Build a Graphical User Interface (GUI) for data visualization using **MATLAB**
 - Investigate Real-time Visualization approach for clinical application
 - Advisor: Prof. Laura Marcu (Department of Biomedical Engineering, UC Davis)
 - **Coursework Project-** Improvement in Reinforcement Learning for Frogger Game Jan. 2019 - Mar. 2019
 - Regenerate the arcade game “Frogger game” using **Python** with PyGame
 - Apply the Q-learning algorithm to Frogger game and analyze its performance
 - Exploit nearest neighbor interpolation approach to improve the performance of Q-learning for Frogger game
 - **Coursework Project-** Human Following Robot Based on Reactive Algorithm for Safe Navigation Jan. 2019 - Mar. 2019
 - Build a simulation environment in **MATLAB/Simulink**
 - Utilize **Simulink toolbox** and **MATLAB** function to simulate a human following robot (Pioneer 3-DX)
 - Apply biological obstacle-avoidance algorithm to robot and its sensors and analyze the performance of the robot
- National Taipei University of Technology Taipei, Taiwan Jun. 2017 - Dec. 2017
 - **Senior Project-** Care System for Pressure Ulcers Patient
 - Exploit the **Arduino** sensors to gauge the major factors (humidity, temperature, pressure, etc.) in causing ulcers
 - Employ Arduino Wi-Fi transmission to transmit sensor data to **IoT** platform, **BLYNK** and **ThingSpeak**
 - Use **PHP** with **MySQL** to transmit data to database and create webpage for Server and Client to achieve the close interaction

SKILLS

- Language Skills:
 - Mandarin (native)
 - English (proficient)
- Programming Language:
 - Python
 - MATLAB/Simulink
 - C/C++
 - C++/CLI
 - R
 - HTML/CSS
 - Assembly Language
- Software Skills:
 - Git
 - Linux (Ubuntu)
 - Debian
 - SQL
 - Visual Studio Code
 - Visual Studio
 - MacOS
 - Xcode

LEADERSHIP EXPERIENCE

- **Vice President** - Taiwanese Graduate Student Association at UC Davis Apr. 2019 - Apr. 2020
- **Chief Executive Officer** - Student Association of EE Department at NTUT Sep. 2015 - Dec. 2016
- **Minister of Secretary Department** - Student Association of EE Department at NTUT Sep. 2015 - Dec. 2016