Yu-Cheng Deng

2121 Glacier Drive, Apt 15, Davis, CA 95616 • Mobile: (530)302-6577 • E-mail: ycdeng@ucdavis.edu
LinkedIn: www.linkedin.com/in/yu-cheng-deng-0413/ • Personal Web: https://ycdeng0413.github.io/

EDUCATION

- University of California, Davis — Sep. 2018 - Jun. 2020
  - **Master of Science** in **Electrical and Computer Engineering (ECE)**
  - Overall GPA: 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

- **Junior Test Engineer** — Jun. 2019 - Aug. 2019
  - Build a File Transfer Protocol (**FTP**) Server under Linux where the machines in the production lines can transmit the log files
  - Write **C++/CLI** script to build a user-friendly Graphical User Interface (GUI) for the operators in the production lines to use FTP
  - Implement Moving-Object Surveillance approach using **Python** and **Open CV** in **Raspberry Pi 4** integrated with **Pi camera** for calculating the productivity of the Printed Circuit Board (PCB) and monitoring the production lines

RESEARCH EXPERIENCE

University of California, Davis — Davis, CA

- **Master Research-** Improved Visualization of Fiber-based Fluorescence Lifetime Imaging in Clinical Setting — Apr. 2019 - May. 2020
  - Apply algorithms to fluorescence lifetime imaging (FLIm) data visualization
  - Construct a Graphical User Interface (GUI) tool for FLIm data visualization using **MATLAB** for research purpose
  - Propose a more robust algorithm for Real-time FLIm Visualization 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 the Q-learning for the Frogger game
- **Coursework Project-** Human Following Robot Based on Reactive Algorithm for Safe Navigation — Jan. 2019 - Mar. 2019
  - Construct a simulation environment using **MATLAB/Simulink**
  - Utilize Simulink toolbox and MATLAB script to simulate a human following robot (Pioneer 3-DX)
  - Apply biological obstacle-avoidance algorithm to the sensors of the robot and analyze the performance in the synthetic environment

National Taipei University of Technology — Taipei, Taiwan

- **Senior Project-** Care System for Pressure Ulcers Patient — Jun. 2017 - Dec. 2017
  - Exploit the **Arduino** sensors to measure the values of the major factors (humidity, temperature, pressure, etc.) in causing ulcers
  - Employ Arduino Wi-Fi transmission to transmit the sensor data to the IoT platform, BLYNK and ThingSpeak
  - Use **PHP** with **MySQL** to transmit the data to the database and create webpage for Server and Client to achieve the interaction

SKILLS

- **Language Skill:**
  - Mandarin (native)
  - English (proficient)
- **Programming Language:**
  - Python
  - MATLAB/Simulink
  - C/C++
  - C++/CLI
  - R
  - Bash
  - HTML/CSS
  - Assembly Language
- **Software Development Skillset:**
  - Git
  - Open CV
  - Scikit-learn
  - SQL
  - Linux (Ubuntu)
  - Debian
  - Windows
  - macOS
  - Jupyter Notebook
  - Visual Studio/ VS Code
  - Xcode
  - Microsoft Office

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