

# PROGRAMMING SKILLS

Data Mining(Python, Node)

#### SOFTWARE SKILLS

Matlab
Microsoft Office
Labview
Photoshop
PowerDirector
OrCAD
Altium Designer
CODEV
Tracepro

# AWARDS

2019 CHT IOT Platform Competition Excellent work

Luifeng Ltd. Intership Program 2nd best intern

2017ATCC Selected

Workforce Agency Robot Competition 4th

# LI, YI-YUN EDDY

# SUMMER INTERN-ELECTRICAL ENGINEER

NSPO's cube-satellite for shooting the landscape of moon.

#### **MOTIVATION**

I I'm so exciting because the opportunity coincidentally, I saw this recruiting post when I trying to connect my C# RD user interface to the visible-IR band optical sensor.

The system is going to use on a medical MEMS micro-spectrometer for various rapid screening tests, and the back end of the system is planned to validate the hyper spectrometer installed on

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m II}$  I cooperated with my Indonesian lab member about hyperspectral image processing, in order to distinguish different kinds of crops in the last semester. The interest wavelength in this research was around IR range.

III I took a course about imaging technology & devices and got fundamental knowledge about camera hardware design, stereo imaging, color planning (iPAS license got) in the last semester.

 ${\sf IV}$  Imaging processing is one of my major in college, even my graduation monograph is about vision control robot. In the last semester, our team processed IR image capture from micro-IR-camera module with deep learning method to tell the dice number in the closed dice cup, and show the results through UI and voice. The IR camera module is only work on IR band and with very short focal length (<5 cm). It purpose to make user like a God of Gamblers.

 ${\sf V}$  I achieved developed face recognition on android system with eigenfaces method in an industry-academia program concerning domotics robot. This function is used to distinguish each of the family members.

VI Human and posture detection is add into the UAV beer delivery system project started from last semester with my Germen bro, and we are trying to optimize it with some high definition tech.

VII I feel lucky to have an international lab environment. Our members come from 6 countries and have lots of chance to cooperate with our international members.

#### **EDUCATION**

NATIONAL TAIWAN UNIVERSITY OF SCIENCE & TECHNOLOGY Master Candidate of Automation and Control | 2019 -

NATIONAL YUNLIN UNIVERSITY OF SCIENCE & TECHNOLOGY Bachelor of Electrical Engineering | 2014 - 2019

### HOBBIES

Astronomy
Programming
Reading
Literature
History
Maker
Ping-Pong
Jogging
Airsoft
Bike riding
Web/APP Design
Swimming

# INTERNATIONAL PARTICIPATION

International Companions for Learning | Feb 2015 - Jan 2018

Beihang University International Summer School | Jul 2017

English Campus Guide | Sep 2015

### **PERSONAL INFO**

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Linkln: Yi-Yun, Eddy Gitub: Eddy-Max-Lee

#### WORK EXPERIENCE

#### TEACHING ASSISTANT

Dept. Electronic & Computer Engineering, TaiwanTech | Sep 2019 -

- Introduced line bot to teaching and improved teacher-student interaction
- Introduced game-based learning into physics classes and changed the way to examine students

#### INTERN ELECTRICAL ENGINEER

Liufeng Machinery Industry Co. Shangdong, China | Feb 2018 - Jun 2018

- Decreased the continual crashing problem of the mechanical arm
- Drafted the SOP for operators to follow and Improved production efficiency

#### E-TUTOR

Ministry of Education, Taiwan | Oct 2016 - Jan 2017

- Assisted students who leave in remote township for their learning on basic subjects
- Received the honor of sharing my game-based learning experience to novices

#### NETWORK ADMINISTRATOR / CONSULTANT

Center of Information, YunTech | Sep 2014- Jun 2018

- Assist new student and international student to solve their school internet problem
- Participated creating the "Yuntech Network" chat bot to serve users and raised the visualization of brand
- Participated optimizing network management system
- Promoted blockchain, app design, community analysis to new members

## RELATED PROJECTS

# IMAGE ANALYSIS FINAL: ANDROID APPLICATION OF MOTION DETECTION & SYMBOL DETECTION AUGMENTED REALITY FPS GAME | 2017

Capture images by using the built-in lens of mobile devices, develop in Android Developer environment with Java, and implement OpenCV for Android library.

Use HOG, motion detection, image recognition and other methods to find a moving human and identify each of the person.

#### APPLICATION OF IMAGE PROCESSING & MOTOR | 2018

The project covers power system, human-machine interface, computer vision system, and motor control system. The robot detect the external environment through webcam and find the target after image binarization, expansion, erosion, centroid analysis, frame capture, and use motor PID control and distance feedback system for moving, fetching, aiming correction and shooting.

### PRACTICAL AOI AND MACHINE VISION FINAL: CHEATING DICE CUP | 2019

Recognite dice number through CNN model with AOI used IR camera module  $\,$ 

# $\underline{ \text{DESIGN OF AN AUTONOMOUS UAV FOR DRONE-TO-PERSON DELIVERY WITHOUT THE } \\ \underline{ \text{NEED OF A SPECIALIZED LANDING SITE} \mid 2020$

The system makes use of GPS and computer vision to achieve a safe and efficient flight path. A road following algorithm is used, to generate safe behavior of the drone.