

# YU-JIE, WU

## EDUCATION

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June 2016 **Taipei First Girls' High School** Taipei City, Taiwan

June 2020 **National Central University** Taoyuan City, Taiwan

(Expected) *B.S. in Computer Science and Information Engineering*

**Overall GPA: 3.7 / 4.0**

**Last 60 Credits GPA: 3.9 / 4.0**

## WORK EXPERIENCE

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07/2019 - **CyberLink Corp.** Xindian Dist., New Taipei City, Taiwan

08/2019 *Software Development Summer Intern*

- implemented crash report feature for [PowerDirector](#) app
- implemented cloud service feature for PowerDirector to apply new updates
- fixed front-end bugs for PowerDirector to make animation move more smoothly
- built a cache mechanism for PowerDirector to reduce the number of query requests from client

## EXPERIENCE

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09/2016 ~ **Computer Center, National Central University**

*Student Dormitory Network Management*

- maintained dormitory network via basic Linux and Windows networking commands
- helped students to configure dorm internet and troubleshoot IP conflict problems

09/2018 - **Multimedia Signal Processing Lab, National Central University**

05/2019 *Independent Studies*

- achieved RGB image forgery detection using CNN with Tensorflow and Keras
- processed RGB image data in Python into pixel-level patches apt for model training

## PROJECTS

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### SimpleCam2 Android App

- built a basic Android Camera app with Android Camera2 API in Java
- demonstrates camera preview and photo capture function

### Echo Chamber In/Out App Backend

- built a web backend for Android App with Flask web framework in Python
- handles HTTP requests and retrieves news data from SQLite database for the front-end

## Laptop Canny Edge Detector

- implemented self-defined Canny Edge Detection from scratch in Python
- displays the edges of Live images recorded from the laptop camera

## 3D Graphics Drawer in OpenGL

- built a C++ program to draw objects in 3D space in OpenGL with my own drawer APIs
- implemented the Mid-Point Line and Circle drawing algorithm in C++
- performed coordinates systems transformations with matrix calculations

## SSH Agent Hijacking Vulnerability and Alternative Demo

- demonstrated the potential vulnerability of SSH Agent Forwarding
- demonstrated one of the alternatives using ProxyCommand

## Visualization of RSSI and SNR Analysis using LoRa Node

- visualized of the relationship between RSSI, SNR, and distance in Python
- measured RSSI and SNR of uplink packets with LoRaWAN gateway

## SKILLS

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- **Programming Languages** Python, C++, Java
- **Tools** Linux, SSH, Git, OpenCV, OpenGL
- **Multimedia Softwares** Adobe Photoshop, Adobe Lightroom
- **TOEFL** 101 (Reading: 27 Listening: 27 Speaking: 23 Writing: 24)
- **GRE** 320 (Verbal: 154 Quantitative: 166 AW: 3.5)

## ACTIVITIES

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- **Student Association of Computer Science and Information Engineering Department**
- **Team Captain of Swimming Team of CSIE Department**
- **Campus Student Reporter of National Central University**