# Szu Kai (Peter) Yang

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#### **EDUCATION**

Purdue University, West Lafayette, IN

May 2020

Master of Science in Computer Science

Purdue University, West Lafayette, IN

May 2018

Bachelor of Science in Computer Information Technology

# **EXPERIENCE**

Springfield, MO **Expedia Group** 

Intern, Site Reliability Team - (Python, HTML, JavaScript, Django)

May 2019 - Aug 2019

- Developed and designed Expedia Partner Solution customer facing API service status page and management page
- Constructed infrastructure to run on Amazon Web Service via AWS CloudFormation and utilizing AWS services in status page
- Worked with agile team to deliver secure and reliable web page to customer
- Lessened \$18,000 company expense
- Integrated Expedia travel agent price calculation API with AWS services

## **Graduate Teaching Assistant**

West Lafayette, IN

Jan 2019 - May 2019

TA Operating System - (C)

- Instructed lab sections for CS 35400 Operating System which covers operating system architectures, processes, inter-process communication, inter-process synchronization, mutual exclusion, deadlocks, memory hierarchy, virtual memory, CPU scheduling, file systems, I/O device management, security
- Worked on open source operating system XINU, an compact kernel for embedded systems
- Developed Bash script to test and grade student's XINU

#### **Quan Industrial Consulting**

New Taipei, Taiwan

Jun 2018 - Aug 2018

Intern, Software Development - (C, Python)

- Worked on Internet of Things (IOT) project sponsored by National Industrial Development Bureau of Taiwan, R.O.C
- Involved in product development cycle including capturing user needs, designing, coding, testing and integrating and writing documentation, in a team environment
- Incorporated application layer protocol, MQTT, onto device with limited internet connectivity in C
- Increased performance by 93 times faster
- Presented in National Innovation Technology Expo 2018

## **SKILLS**

- Programming Language: Proficient: Java, Python, C, C++, BASH, Swift, C#
- Database: MySQL, Oracle SQL

#### **PROJECTS**

# Simpson Image Recognition and Generation

Oct 2018 - Dec 2018

Generative Adversarial Networks [GAN] - (Python, Pytorch)

- Built and trained Deep Convolutional Generative Adversarial Network and Boundary Equilibrium Generative Adversarial Network with Pytorch in Python
- Generated entirely new Simpsons character from existing Simpsons character
- Achieved high image quality Simpson character that looks alike Simpsons characters

## Convolution Neural Network CIFAR-100

Sep 2018 - Oct 2018

Image Detection and Classification - (Python, Pytorch)

- Implemented a Deep Learning LeNet-5 Network Architecture that train and validate on CIFAR-100 dataset with Pytorch in Python
- Classified objects in images out of 100 different classes
- Engineered OpenCV with CNN to classify objects in real time through WebCam

# **CERIAS Benedor TSE Bank Mobile Payment**

Jul 2017 - Nov 2017

P2P Financial Transaction - (Python, Swift)

- Developed behavior-based and regression testing script in Python for 12 RESTful APIs
- Build client-side code on iOS (in Swift) to interact with existing server using the 12 RESTful APIs
- Succeeded with an extend of sponsorship from CERIAS partner
- Demo: https://goo.gl/BPpsDj

### Web Crawler and Search Engine

Jun 2017 - Jul 2017

Crawl information from a Root URL - (C++)

- Developed an web crawler (in C++) that retrieves more than 100 URLs and descriptions of the site
- · Constructed HashTable, AVL, Heap and Resizable Array data structure for information crawled from web