# HUY H. NGUYEN

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#### **EMPLOYMENT**

## **Test Automation Engineer,**

Contractor Broadcom 05/2021 – 04/2022

- Developed a python automation framework for configuring and validating after building a new test environment setup. Analyzed validation data and debugged issues
- Developed and maintained tools to periodically check health of production testing stations and automatically recover once detect an issue
- Built a dashboard application for monitoring the health of production testing stations using Flask as backend and React JS as frontend

## **Computer Science Instructor**

#### **STEAM for Vietnam**

09/2020 - Present

 Prepare materials and teach Computer Science foundation course (CS101) and game development (CS102) to children in Vietnam via live stream platforms

## **IT Support and Web Developer**

**UCLA** 

10/2019 - 05/2021

- Deployed websites on cloud AWS using Linux Docker images and Kubernetes
- Configured new equipment such as routers, wireless modems, desktops for the entire department.
- Created Customer Relationship Management tool using PHP, JavaScript, & MySQL to automate process for over 3000 contributors to input data using HashMap data structure

Researcher, Intern Cyber Defenders 06/2018 – 08/2018

- Processed 18 malware datasets using Python for open-source libraries: NumPy, Pandas, Matplotlib
- Utilized TensorFlow framework to improve classification of future malware

## **EDUCATION**

### Los Angeles, CA

## **University of California, Los Angeles**

March 2022

B.S.E. in Computer Science

GPA: 3.5

### **PROJECTS**

- <u>Virtual router with NAT</u> UCLA Project Built a virtual router which can receive raw Ethernet frames and process them
  just like a real router: forward them to the correct outgoing interface, create new frames, store MAC address and IP
  address in the looking table
- <u>Temperature Logger</u> UCLA Project Programmed beaglebone board running on Linux platform to read temperature sensor and store data in remote server
- <u>Line Follower Robot</u> UCLA Project Programmed TI-RSLK robot to follow various paths and improved the speed to 2ft/s by applying PID Algorithm (C++, Energia IDE)
- Hand Gesture recognition Project Practical Project Trained a hand gesture recognition model using OpenCV Python library with 92% accuracy using Transfer Learning and Convolutional Neural Networks
- Reinforcement Learning Practical Project Developed Neuron Network class and applied Genetic Algorithm to automatically play Flappy Bird game using Python

### **S**KILLS

- Programming Language: Python, C/C++, JavaScript, Unix/Shell Java, Swift, PHP, MATLAB, LISP
- Full-Stack Development: Django, Flask, Node JS, WordPress, MySQL, React JS, Angular, HTML, CSS, Bootstrap
- Tools: Git/GitHub, Jupyter Notebook, Kubernetes, JIRA, Coda, Slack

### **CERTIFICATES**

- Fundamentals of Machine and Deep Learning Andrew Ng coursera.org
- TensorFlow in Practice Specialization Laurence Moroney coursera.org