Michael Roy Lue

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Career Objectives

- Working in a challenging and progressive environment that will utilize my creative and analytic skills/ Contributing positively to any organization at which I may become employed. Enthusiastic about learning new things.

Professional Experience

MACHINE LEARNING ENGINEER INTERN | SERTIS | BANGKOK, THAILAND | JULY 2019 – SEPTEMBER 2019

- Modified **OpenCV** and **Ffmpeg's** source code to obtain RTSP Timestamps needed for video synchronization for sport activities and people counting. Analyzed RTSP timestamp packets' data as well as in order to observe the flow of data from IP Cameras.
- Utilized **Google Cloud Vision** API(OCR) to read timestamps and RTSP timestamps from video stream then compared and translated timestamps into human readable time for further analysis.
- Writing **unit and integration tests** as well as testing Sertis' face detection API services.

R&D INTERN | COOL GUY ROBOTICS LTD| HANGZHOU, CHINA | JULY 2017 – SEPTEMBER 2017

- Debugging and repairing **humanoid robots** as well as installing Bluetooth to wirelessly control them. Send commands through WeChat (Messaging App in China, equivalent to Line) to allow robots to dance to the corresponding song.
- Utilising the **raspberry pi** and the **pcDuino** for DIY projects to engage children to learn the fundamentals and programming of robotics.
- Using the pcDuino to make a **DIY robotic car with surveillance functionality** and control through remote desktop connection.

Personal Projects

THE PATH-FINDING-VISUALIZER | JANUARY 2020

- Built ReactJs application for visualizing pathfinding and maze-generation algorithms.
- Implemented 6 different algorithms based on A* search and Dijkstra's Algorithm.
- Demo: https://jamaicanfriedchicken.github.io/path-finding-visualizer/

TETRIS-CLONE MULTIPLAYER | DECEMBER 2019

- Built using Javascript, HTML5 and Websockets framework to recreate an original game of tetris.

- Implemented a session built feature with Websockets which it requires their unqiue ID to play against each other.

JAM-PROGRAMMING-LANGUAGE | DECEMBER 2019

- Built small programming language in Java called Jam.
- Implemented variable declaration (global and local), functional calling, conditionals, order of operations, and error handling.

FACE ORIENTATION CLASSIFIER AND CORRECTION API | APRIL 2019

- Utilizes Convolutional Neural Networks as the architecture and Keras framework. The model has been trained on a dataset of 400 images of faces scraped from Google Images.
- Deployed on Flask RESTFUL API; accepts an image of a face from the user regardless of the its metadata then proceeds to check the orientation. If orientation isn't normal, API will correct the image's orientation based on the machine learning model's feedback and outputs it back to user in an upright position.

Education

BACHELOR'S DEGREE | 2014 – 2019 | ZHEJIANG UNIVERSITY

- Major: Electronic Information Engineering
  Graduation Thesis: The Research of Third Harmonics Wireless Power Transfer in Electric Vehicles.

CHINESE COURSES | 2013 – 2014 | TAIYUAN UNIVERSITY OF TECHNOLOGY

- Certificate of Completing Training Courses in Mandarin Chinese (Scholarship Awarded by the Confucius Institute)

Skills

PROFICIENT WITH:

- Python, C, Java, Javascript, Node.js, HTML, CSS, Linux, Git, ReactJs, MATLAB, Tensorflow, Keras, Docker, Git, Google Cloud

LANGUAGES:

- English (Native Speaker)
- Chinese Mandarin (Fluent, HSK level 5)