

# KWOK HUNG JOHN HO

linkedIn/johnkhho ◇ github/johnkhk ◇ johnkhk.github.io/portfolio  
+1(858)250-9116 ◇ johnho.khh@gmail.com

## EDUCATION

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### UC San Diego (BS/MS Program)

M.S Candidate in Intelligent Systems, Robotics & Controls  
B.S in Electrical Engineering — Machine Learning & Controls

*Expected: Jun 2023 — La Jolla, CA*  
*Graduated: Jun 2021 — La Jolla, CA*

## WORK EXPERIENCE

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### Application Technology Limited

Jun 2021 to Sep 2021

*AI Specialist Trainee*

- Quantized and converted Tensorflow models into TFlite models for deployment in edge TPU cameras.
- Implemented deep sort tracking and fall detection YOLO models running on NVIDIA Jetson Xavier.
- Used transfer learning with PyTorch to train a face detection + mask classification model with 91% precision and 89% recall.
- Delivered a working suitcase detection model and anti smuggling detection algorithm to be deployed at the Hong Kong International Airport using a multi-object tracking model with Docker and Python.

### Risksis Technology Limited

Mar 2021 to Jun 2021

*AI and Web Engineer*

- Performed OCR and Evaluated the performance of NLP Transformers models such as BERT and XLM-RoBERTa on PDFs about incidents that occurred in the Hong Kong subway system.
- Delivered a queryable full stack web project using Vue.js and ASP.NET backend with MongoDB and Elastic Search.

### ASTRI - Science Park, Hong Kong

Jun 2019 to Sept 2019

*Software Engineer Intern*

- Developed an augmented reality UWP application for the Microsoft HoloLens with Unity (C#) and ROS which allows the user to spawn objects via gestures at the location of AR tags.
- Utilized WebSocket protocol for communication between ROS and HoloLens.

## PROJECTS

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### Cryptotrackerr.tk

Created and hosted a website that allows users to track cryptocurrencies. Used MERN stack and hosted the website on an AWS EC2 instance.

### Polar Coffee

Developed IoT features using a Raspberry Pi for a Smart Iced Coffee Machine. Created a website with Django that tracks user data and allows remote control of the machine through REST API and MQTT protocol.

## ADDITIONAL EXPERIENCE

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### MRI/CT-compatible Robots Lab

Lab researcher focusing on lung segmentation and needle tracking in CT and MR images.

### Triton Unmanned Aerial Systems (Triton UAS)

A UCSD org dedicated to aerial drones. Part of embedded (antenna tracker) and software (backend) team.

## SKILLS

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### Programming:

Python, Java, C/C++, C#, LabVIEW, Go

### Coursework:

Reinforcement Learning, Image Processing, Statistical Learning

### Web Development:

MERN stack, Vue, Svelte, MySQL

### Software & Tools:

Git, Linux, Docker, ROS, L<sup>A</sup>T<sub>E</sub>X, PyTorch, TensorFlow, OpenCV