

# Chun Yang

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## Education

### University of Southern California

California, USA

Master of Science in Computer Science | GPA: 3.95 / 4.0 (current)

Aug 2022-May 2024

### National Chiao-Tung University

Hsinchu, Taiwan

Master of Science in Computer Science | GPA: 4.03 / 4.3

Sep 2016-June 2018

Bachelor of Science in Civil Engineering | GPA: 3.81 / 4.3

Sep 2011-June 2016

## Work Experience

### Universal Global Scientific Industrial Co., Ltd.

Taipei, Taiwan

#### Senior Software Engineer

Nov 2018-May 2022

- Analyzed real-time raw data for over 200 machines, 6 cross-country sites, and 50 production lines
- Developed an AI system to classify images from automated optical inspection machines, reducing 80% of false alarm images for repair stations
- Collaborated with teams from Portland, Mexico, and China, negotiating site conditions for over 20 software modules across different machines

## Projects [🔗](#)

### DQN Mini Self-driving Car [🔗](#) | Python, Pytorch

May 2023

- Trained an AI agent to navigate an environment containing a map, a car, and various features using reinforcement learning DQN algorithm

### Simple FPS Shooter [🔗](#) | C++, Unreal Engine 5

April 2023

- Implemented fundamental First-Person Shooter gameplay mechanics, animations, enemy AI, and winning/losing conditions, equipping aspiring game developers with practical skills

### Toon Tank Battle Game [🔗](#) | C++, Unreal Engine 5

March 2023

- Created an engaging game experience by enabling players to control a tank, handle movement and actions, and face challenging enemy turrets

### YELP Review Platform [🔗](#) | Angular, SwiftUI, Bootstrap, Flask, Node.js, GCP

Sep 2022-Nov 2022

- Constructed a full-stack YELP searching website, including responsive webpages, and an iOS app version

### Little Go AI Player [🔗](#) | Python

Oct 2022

- Built two AI agents, one applying the Minimax algorithm with Alpha-Beta pruning and another one based on Q-Learning, to play a 5x5 version of the Go game

## Activities

### Campus Smart Drones | OpenCV, Tensorflow, Pytorch

Hsinchu, Taiwan

Collaborative Vision Laboratory Teamwork

Sep 2016-June 2018

- Developed a collaborative aerial video surveillance system utilizing drones for campus delivery tasks.
- Led our laboratory's vision team to process images from virtual scenes to simulate auto-piloting reactions

## Publications

### IF-NET An Illumination-invariant Feature Network

Aug 2020

IEEE International Conference on Robotics and Automation (ICRA)

- Implemented a robust and generic descriptor under crucial illumination change conditions
- Proposed a ROI loss and hard-positive strategy to bolster the feature descriptor's capabilities

## Skills

**Programming Language:** C++, Python, Java, HTML, CSS, TypeScript, JavaScript, SQL

**Tools Experience:** Git, OpenCV, OpenGL, Pytorch, Tensorflow, Angular, Bootstrap, Flask, SwiftUI, Unreal Engine 5