Chun Yang

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Education

University of Southern California	Los Angeles, CA

- Master of Science in Computer Science | GPA: 3.92 / 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 AI systems to classify images from optical inspection machines, reducing 80% of false alarm images
- Collaborated with teams from Portland, Mexico, and China, negotiating site conditions for over 20 software modules across different machines

Projects 🔗

HMM Part-of-Speech Tagging for Wall Street Journal 🔗 | *NLP, Machine Learning* — Sep 2023

- Accomplished the Hidden Markov Models based on Greedy and Viterbi Decoding, reached 95% accuracy of word tagging for Wall Street Journal's article

Sentiment Analysis For Amazon Reviews 🔗 | *NLP, Machine Learning, Sklearn, Pandas* — Aug 2023

- Implemented Bag-of-Words and TF-IDF methods to classify the sentiment of Amazon's review context

A3C Agent Playing Breakout Games 🔗 | *Q Learning, Pytorch* — June 2023

- Trained an AI agent to play the game of Breakout using the Asynchronous Advantage Actor-Critic algorithm

DQN Mini Self-driving Car 🔗 | *Deep Learning, Reinforcement Learning, Pytorch* — May 2023

- Developed a self-driving agent to navigate an environment containing a user-define map, a car, and various features using reinforcement learning DQN algorithm

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 🔗 | *JavaScript, Angular, SwiftUI, Bootstrap, Flask, Node.js, GCP* — Nov 2022

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

Little Go AI Player 🔗 | *Python, Machine Learning* — 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	*Computer Vision, Tensorflow*	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: Git, Pandas, Sklearn, Pytorch, Tensorflow, Angular, React, jQuery, Node.js, Flask, SwiftUI, Unreal Engine 5