

Po Wei Hsu (Sander)

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BRIEF INTRODUCTION

Experienced AI and software engineer with 3+ years building intelligent systems. Proficient in CV, NLP, ML, and data engineering using Python, Golang, PyTorch, and LangChain. Equipped with a strong QA mindset and hands-on experience in test automation (Cypress, Playwright), ensuring reliability and quality across the development lifecycle. Skilled in end-to-end pipeline development, cloud deployment, and CI/CD. Collaborative and detail-oriented, with a focus on building robust, production-ready systems.

3+ years of experience in Software Development.
1+ years of experience in computer vision.
1+ years of experience in machine learning.
1+ years of experience in data engineering.

SKILLS

Programming & AI

Python / Golang / Node.JS / Next.JS / React / C / C++ / C#
Pytorch / TensorFlow / Scikit-Learn / Cuda / YOLO & OpenCV
LangChain / Fastmcp / LLM fine-tuning / Ollama

Database

PostgreSQL / MongoDB / influxDB / Milvus / Chroma

DevOps

Git / Github Actions / Gitlab CI / DVC
Docker / Kubernetes / AWS / Azure / GCP /
Spark / Kafka / Airflow / KubeFlow / Langflow /
Grafana / Cypress / Robot Framework

LICENSES & CERTIFICATIONS

Coursera & DeepLearning.AI

- Machine Learning (May 2025)
- MLOps Specialization (May 2025)

DataBricks

- Data Engineer Associate (May 2025)

Forage

- J.P.Morgan - Software Engineering Job Simulation (May 2024)
- AWS APAC - Solutions Architecture Job Simulation (May 2024)
- Electronic Arts - Software Engineering Job Simulation (April 2024)

Certiport

- IC3 Digital Literacy Master (December 2022)
- Microsoft Office Specialist Master (February 2019)

LANGUAGES

- Mandarin - Native Speaker
- English - Professional working proficiency

EDUCATION

National Pingtung University

B.S. in Information Management

📅 Aug 2019 - Jul 2023 📍 Pingtung, Taiwan

WORK EXPERIENCES

Associate AI Engineer

Ubiquiti Inc.

📅 Dec 2024 - now 📍 Taipei, Taiwan

1. community-pipeline-Core & community-test-designer

Developed a fully automated monitoring and suggestion system based on UI-Community, achieving a 1000× efficiency boost. Also doubled the productivity of the Protect, Drive, Access, Connect, and Play product teams by leveraging a custom-built TestDesigner Agent to address core PM and QA pain points.

2. video-ETL

Developed an efficient transformation pipeline using pre-trained models and computer vision techniques to eliminate manual dataset collection, significantly reducing both manpower needs and turnaround times.

3. ai-qa tools

Developed a front-end/back-end tool suite that streamlines AI workflows by validating dataset integrity and detecting functional anomalies, substantially cutting development-cycle waste.

4. tickets2issues-reviewer

Developed a pipeline to transmit Jira tickets into a GitHub repository and employed an AI agent to rapidly triage and pinpoint key issues.

5 .v-cameras - multiple Onvif/RTSP servers & cameras - monitor

6. LabelStudio & CVAT

AI Software Engineering Intern

Pegatron Corporation

📅 May 2024 - Nov 2024 📍 Taipei, Taiwan

Engineered and streamlined internal LLM processes using Llama and LangChain, constructed scalable data pipelines with Milvus, NoSQL, SQL, and improved data pre-processing through semantic chunking, enhancing recall by 5%. Created interactive multi-modal chatbot response visualizations, participated in the design of a Mixture of Agents architecture that improved system performance by 20%, and worked cross-functionally to provide a frontend interface focused on user experience.

SQA Automation Engineering Intern

SWAG.live

📅 Sep 2024 - Nov 2024 📍 Taipei, Taiwan

Created and developed a customized automated testing framework from scratch utilizing Cypress and JavaScript, independently creating the test architecture, reusable components, and authoring composite UI and functional test suites for multi-layered verification of workflows, API integrations, and edge-case scenarios. Further, integrating these tests to CI/CD pipelines for seamless execution provided over 90% automation coverage while reducing manual testing effort by over 70%.

Research Assistant

National Pingtung University

📅 Apr 2023 - Apr 2025 📍 Pingtung, Taiwan

Founder

Tientao Series Technology Co., Ltd. (電到系列科技有公司)

📅 Apr 2022 - Sep 2023 📍 Kaohsiung, Taiwan

PROJECT EXPERIENCES

Research Assistant - Research on TSN Industrial IoT Multicast.



helgesander02/OMRSS

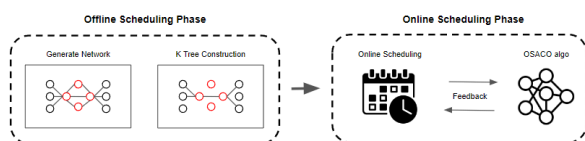
Paper 1 - Online Multicast for Mixed Critical Applications

Paper 2 - Online Scheduling and Routing Optimization for CAN-TSN Gateway in Hybrid Networks

I researched Time-Sensitive Networking for Industrial IoT Multicast, implementing an experimental simulation system using OOP and multi-threading. Through extensive literature review, I enhanced experiment quality, ultimately providing comprehensive data reports and research findings.

Contributions:

I contributed about 5,000 lines of code to this project. I used TDD to improve the extensibility, readability, and reduce the occurrence of dirty code. I also used more efficient dynamic programming to accelerate the algorithm. Finally, I implemented automation through the use of shell and yaml to help experiments find the best parameters for the algorithm



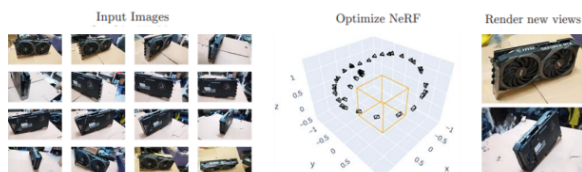
Founder - Product Technology Demo of 3D Volume Rendering Applied to E-Commerce Platform



A system that uses NeRF and Instant-ngp to train a model that can generate 3D objects, and then displays the results on my e-commerce website. The system is primarily designed in Python and CUDA.

Contributions:

I contributed about 1,000 lines of code to this project using PyTorch and CUDA. I primarily used open source projects as a foundation for modification. Through studying open source and researching other papers, I helped the system to better display 3D structures. Finally, I wrote this system as an API and connected it to a Django website.



Recommendation System Experiment Notes

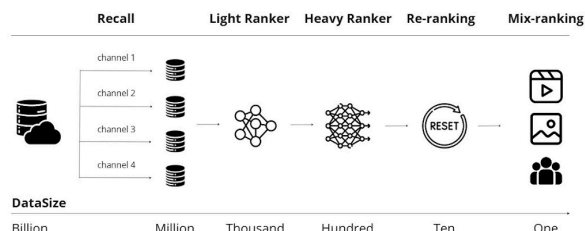


helgesander02/RSEN

An experiment of a **mainstream recommendation system**, implementing the entire process and detailed interpretation of related algorithms.

Contributions:

As a key contribution, I've built a simplified recommendation system, totaling about 5000 lines of code. The system is modeled after Twitter's open-source recommendation algorithm and utilizes a multi-faceted approach, including (CF, Vector, Tree, Model) recall techniques and a 2-Tower ranking architecture. Furthermore, I've addressed the common cold-start challenge and leveraged insights from the paper 'Methodologies for Improving Modern Industrial Recommender Systems' to optimize the system's performance.



Symbolic project that represent my potentials

pytorch-cppcuda



helgesander02/cuda

Writing custom **pytorch cpp+cuda kernel**, applied on volume rendering (NeRF)

openhands-resolver-testrepo



helgesander02/openhands-resolver-testrepo

An Issue & PR bot built using an **OpenHands AI agent** in conjunction with **GitHub Actions**.

CESapi



helgesander02/CESapi

This is a **currency exchange service API** designed using **dependency injection** and **Gin**.

TKFruitMG



helgesander02/TKFruitMG

An **ERP** system that uses **customtkinter** as the GUI base, with a **postgresql** database and **reportlab**, and **pymupdf-fitz** design.

den_no_suke_LineBot



helgesander02/den_no_suke_LineBot

A **LineBot** implementation on **Render Cloud** using **crawling technology**, which can send price comparison messages and the latest tech news, and also connects to the **OpenAI ChatGPT API**.

Crawler2ITDV



helgesander02/Crawler2ITDV

The ITDV tool primarily observes data such as time, quantity, and funds, and visualizes it in chart form. ITDV is designed using **LINQ**, stored procedures, and **Windows form**.