

Han Tang Lin

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Summary

I am a software engineer with a strong background in astronomy and a passion for building intelligent, real-world systems. I have 2+ years of experience in Python and AWS infrastructure, with hands-on experience integrating computer vision (OpenCV) to detect strike zones from live baseball broadcasts and setting up home camera systems for intrusion monitoring. My work blends machine learning, full stack development, and system integration, bridging complex data and scalable, AI-driven solutions.

Experience

Pacston

Taipei, Taiwan

BACKEND ENGINEER

Aug. 2023 - Present

- Led the design and development of scalable RESTful APIs and backend systems for 5+ key projects.
- Optimized CI/CD pipelines and database performance, achieving up to 50% faster deployments and queries.
- Implemented AWS-based architectures and RAG chatbots using LangChain to enhance reliability and intelligence.

National Central University

Taoyuan, Taiwan

RESEARCH ASSISTANT

Sep. 2021 - Jun. 2023

- Conducted data scraping, database management, and ML clustering for astrophysical data analysis.
- Researched local properties of Type Ia supernova host galaxies and developed a custom TOM website.

Skills

- Backend** Python, FastAPI, Django, RESTful APIs
- Frontend** React, TypeScript, Next.js, Three.js
- Database** MySQL, PostgreSQL, MongoDB
- ML/AI** scikit-learn
- DevOps** AWS, Vercel, Docker, Jenkins, GitHub Actions
- Languages** Chinese, English (IELTS 7.5), French, Japanese

Education

M.Sc. in Astronomy

Taoyuan, Taiwan

INSTITUTE OF ASTRONOMY, NATIONAL CENTRAL UNIVERSITY

Sep. 2019 - June. 2021

- Dissertation: Catching the Flames: Flare Activity of Wolf 359

B.Sc. in Physics

Kaohsiung, Taiwan

PHYSICS DEPARTMENT, NATIONAL SUN YAT-SEN UNIVERSITY

Sep. 2015 - June. 2019

Projects

Let's Sing Together

lets-sing-together.com

DEVELOPER

- Built a full-stack lyric-syncing web app with Next.js, Tailwind CSS, and PostgreSQL.
- Enabled Karaoke lyric tracking with YouTube video integration and deployed via Vercel.

NCU Targets and Observation Management (NCU TOM)

tom.astro.ncu.edu.tw

DEVELOPER / MAINTAINER

- Developed and maintained an open-source observation management system tailored for Lulin Observatory.
- Built with Django, Next.js, PostgreSQL, and Docker, enabling coordination with international observatories.

CPBL Strikezone Detection

DEVELOPER

- Built a Python-based OpenCV algorithm to detect strike zone circles from live CPBL broadcast footage.