

# Wen Shau Huang

Full stack software engineer with over 7 years production experience in education, online retail, airport hospitality, and sport science.

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## WORK EXPERIENCE

### Element Inc., New York, NY, USA

Software Engineer (Remote)

Jan, 2022 – present

- Implemented a license data aggregator and management system utilizing Python Flask and PostgreSQL. This system effectively aggregated and managed license data, enhancing data organization and accessibility.
- Collaborated with data researchers to develop a 1 to N search for vector deduplication. The solution leveraged Python FastAPI and Milvus, an open-source vector database, achieving accurate and efficient deduplication of vectors.
- Worked alongside the development team to architect an innovation platform encompassing a data marketplace and end-to-end AI model service. The platform seamlessly integrated GCP for robust cloud infrastructure, while backend development was handled using Python FastAPI and Kotlin Spring Boot. The frontend was skillfully crafted with Vue.js, providing a user-friendly and interactive experience.

### Artomotion, Taipei, Taiwan

Cheif Executive Officer

Apr 2021 – Present

- Developed and maintained Karma Zone, an innovative automated strike zone system for official baseball games. This system, powered by Python, Firebase, OpenCV, and Deep Learning, accurately detects strikes and captures high frame rate videos from multiple angles. It enriches the game experience by providing additional valuable information such as trigger time, batting angle, ball speed, and ball axis.
- Spearheaded the development of Karma Cam, a cutting-edge personal training assistant system inspired by Karma Zone. This system employs multiple cameras from different angles to capture and meticulously analyze every movement of players, including swing speed, angle, pitch velocity, and displacement. The product is skillfully crafted using Python and PyQt, delivering a seamless and comprehensive training experience for players.

### Gooroo, New York, NY, USA

Lead Mobile Developer

Oct 2019 - Feb 2021

- Collaborated closely with a backend developer and UI/UX designer to create two distinct apps, Gooroo and Gooroo For Tutors, catering to students and tutors, respectively. These apps offer a comprehensive range of features, empowering users to schedule sessions, manage their calendars, review their learning portfolios, and handle payments effortlessly, all within a single intuitive interface.
- Worked with backend developer and UI/UX designer to create Gooroo and Gooroo For Tutors apps for students and tutors. Comprehensive features include session scheduling, calendar management, portfolio review, and seamless payments. Gooroo is iOS-only (Swift), while Gooroo For Tutors is available on iOS and Android (Objective-C, Kotlin). Success attributed to user-friendly design and efficient integration.

### AI Research Center, Feng Chia University, Taichung, Taiwan

Research Assistant

Feb 2018 - Sep 2019

- Led a team in cooperation projects with a major online retailer in Taiwan, delivering an end-to-end production data-driven service. Utilized R and Python to develop

a machine learning pipeline, capable of analyzing diverse data types, including NLP, image, and tabular data, while handling imbalanced labels. Our focus was on empowering students through hands-on learning and leveraging advanced technologies to enhance the retailer's commodity designs, offering practical solutions to improve their offerings.

## **OTG Management, New York, NY, USA**

Software Engineer

Sep 2016 - Oct 2017

- Collaborated with a data scientist to implement a cutting-edge recommendation service based on the Multi-armed bandit problem. Developed using Python Flask, with Redis for caching and MySQL as the database, the system was containerized using Docker for seamless scalability. Remarkably, even during peak airport hours, Ultron, the recommendation engine, handles hundreds or thousands of requests per second on a single machine, ensuring a smooth user experience.
- Led maintenance and development efforts for Concierge, OTG's flagship product, in collaboration with the software team. Concierge offers diverse features, including food ordering, gaming activities, and access to airline membership bonuses, enhancing the airport experience for customers. Developed primarily using Objective-C, Concierge also leverages WKWebView for smoother interaction with JavaScript components, enhancing maintainability and user deliverability.

## **Gooroo, New York, NY, USA**

Lead Mobile Developer

Sep 2015 - May 2016

- Led the development and design team in successfully creating and launching the inaugural Gooroo app for both iOS (Swift) and Android (Java).
- Collaborated closely with the backend developer to design and develop the robust Gooroo backend service, leveraging Node.js and AWS. MongoDB served as the database, while DynamoDB was utilized for efficient caching.
- Expertly integrated the Stripe payment processor to facilitate seamless and secure payment transactions within the app and backend.
- Engaged in strategic discussions with the CEO to devise and implement the pricing strategy, ensuring a competitive and effective revenue model for the platform.

## **EDUCATION**

### **University of Illinois at Springfield, IL, USA**

Master of Science in Computer Science - 3.85 GPA

Dec 2014

### **Feng Chia University, Taichung, Taiwan**

Bachelor of Science in Computer Science

Jun 2011

## **SKILLS**

- Programming language: Python, Objective-C, Swift, Kotlin, R, Dart
- Framework: FastAPI, Flask, Spring Boot, Spring Webflux, Flutter, Plumber
- Database: PostgreSQL, MySQL, MongoDB, SQLite, Redis
- Others: AWS, GCP, Docker, Machine Learning, System Design