

MingChieh Yang

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Results-driven Software Engineer with 4 years of experience building scalable backend services, distributed systems, and automated CI/CD pipelines. With hands-on expertise in microservice architecture, cloud infrastructure (AWS), and data-intensive applications. Strong background in both startup and enterprise environments, with a proven ability to quickly learn new technologies and deliver reliable, production-ready solutions in fast-paced, agile teams.

Skills

Coding Languages Proficient in **Java 8/11+/21**, **Python3.5+**, **C++**; Solid in **Scala**, **C#**, **JavaScript**, **TypeScript**, **C**, **Rust**

Tools: **Git**, **Shell Script**, **Docker**, **Kubernetes**, **Makefile**, **Jenkins**, **RestAPI**, **MySQL**, **MongoDB**, **Spark**, **Kafka**, **RabbitMQ**, **Redis**, **CI/CD**, **Agile**, **DevOps**, **Microservices**, **SpringBoot**, **Spring Security**, **React**, **Hibernate**, **CSS**, **HTML**, **C# .NET**, **Android**, **gRPC**

Experience

Charter Communications(Spectrum)

New York, NY

Software Developer IV

Dec 2024 - May 2025

- Trunk Automation Platform
 - Engineered and deployed **RESTful APIs** for core platform operations, leveraging **Java**, **Spring Boot**, and the Seygen framework. Seamlessly integrated **gRPC**, **Hibernate**, **Oracle**, **MongoDB**, **Redis (AWS ElastiCache)**, and **JWT** to ensure secure and efficient provisioning and request handling.
 - Architected and built scalable backend microservices using **Groovy** and **Grails**, incorporating **Kafka** and **multithreading** for asynchronous message processing. Deployed and orchestrated these services using **Kubernetes** and **Docker** on **AWS** with **Terraform** for serverless, event-driven operations, boosting system responsiveness and data throughput by 40%.
 - Developed dynamic front-end interfaces with **HTML** and **React**, ensuring seamless integration with JWT-secured backend APIs to elevate user experience and fortify access control mechanisms.
 - Established and optimized resilient **CI/CD pipelines** using **GitLab** and **JFrog** Artifactory, fully automating **testing**, **building**, and **deployment** processes to achieve rapid, reliable, and consistent software delivery.

CoolSo Inc.

Taipei, Taiwan

Software Development and Artificial Intelligence Engineer

Jun 2020 – July 2022

- Desktop and Mobile Application for Data Collections and Beta Testing
 - Developed supporting backend services using **Java** and **Spring Boot**, providing RESTful APIs for device management, session tracking, and secure data ingestion into cloud storage.
 - Built a non-blocking, **event-driven** backend to support high-concurrency API interactions, while offloading I/O-intensive and CPU-bound operations to **asynchronous** workers, ensuring responsiveness under load. Integrated **Redis** Pub/Sub and **RabbitMQ** for distributed task coordination and real-time event handling.
 - Consolidated four legacy data collection tools and beta testing interfaces using **Python** (Tkinter) and **C++**, and successfully deployed them as a unified React web application.
- Multi-Gestures Recognition System
 - Pioneered development of advanced, lightweight models using **PyTorch**, **Hugging Face**, **Python**, **CUDA**, and **Cython**, reducing model size by 90% and enhancing inference speed by 3x. Expanded gesture recognition capabilities from 3 to 12 distinct gestures across both hands.
 - Architected and implemented robust **CI/CD pipelines** for data processing and machine learning development, establishing a comprehensive **data pipeline** that streamlined the entire **MLOps** lifecycle.
 - Optimized data processing efficiency, achieving a 4x increase in speed through automated updating, processing, and validation, **modularizing** complex data processing workflows for **agile experimentation**.
 - Streamlined the development-to-deployment process by eliminating manual operations for setup, testing, and delivery, facilitating large-scale model testing and rapid deployment.

City University of Hong Kong

Hong Kong

Full-Time Research Assistant in Computer Science and Creative Media Department

Oct 2019 - May 2020

- Achieved 92% correctness rate in challenging, noisy environments (e.g., buses, walking, running) using **Java**, **Android Studio**, **Python**, and **TensorFlow**, demonstrating robust sensor-based activity detection.
- Developed engaging mobile application games for user data recording and labeling with **Java**, **Android Studio**, **SQLite**, and **Firebase**, efficiently facilitating the collection of essential training and testing data.

TaoMau Automatic Technology

Taoyuan, Taiwan

Software Engineer Intern

Nov 2015 - Aug 2017

- Designed and implemented a robust warehousing system, encompassing **C#.NET** desktop and **Android mobile applications**, backed by **MySQL** and **SQLite** databases.
- Offered critical customer support and crafted customized software solutions to meet diverse client requirements, enhancing system adaptability and user satisfaction.

Educations

New York University, Courant Institute of Mathematical Sciences

New York, NY

Master of Science, Computer Science GPA: 3.57

May 2024

National Taipei University

Taipei, Taiwan

Bachelor of Science in Electrical Engineering

Jun 2019