

# Wei Han

Mobile: (732) - 532 8626 | Email: weih24800@gmail.com  
LinkedIn: <https://www.linkedin.com/in/wei-h-330a18222/>

## EDUCATION BACKGROUND

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**Rutgers, the State University of New Jersey, NJ**

*MEng in Software Engineering, Teaching Assistant*

*Sep, 2024 – May, 2026*

**GPA: 4.0**

**Shandong University, China**

*Sep, 2019 – Jun, 2023*

*BEng in Automation*

- **Core Courses:** Data Structure, Operating System, Computer Organization and Architecture, etc.

## SKILLS

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- **Languages:** Go, Java, Kotlin, C#, JavaScript, TypeScript, HTML, CSS
- **Tools:** Node.js, Nextjs, React, .NET, MERN, Gin, GORM, Redis, Docker, Kubernetes, AWS, Azure

## WORK EXPERIENCE

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**AiLF Instrument, China**

*May, 2023 – June, 2024*

*Software Engineer (Android & Windows)*

**Intelligent Methane Detection Drone App (Android) | Kotlin, Jetpack, Room, Firebase**

- **Description:** Developed a methane monitoring app in **Kotlin** using **Jetpack Compose**, **Room**; implemented **BLE** over **UDP** to collect sensor data and control a **DJI drone**; integrated **Mapbox** to display flight routes and methane points on a map; enabled video streaming to the cloud; leveraged **Firebase** for data synchronization and error tracking; and utilized **Coroutines**, **StateFlow**, and **Hilt** to manage data flow and structure the application.

**Methane Monitoring Application (Windows) | C#, .NET, MySQL, MQTT, gRPC, Azure**

- **Description:** Built a WPF Windows application in **C#** with **.NET** as a companion to the Android drone app. Integrated **MQTT** to receive sensor data, connected to a **MySQL** database for data storage, and used **Live Charts** to display methane concentration curves. Enabled cloud synchronization through **Azure**. Established cross-platform data exchange and control between Android and Windows clients using **gRPC** and **REST APIs**.
- **Achievement:** The Android and Windows app are used by **over 500** organizations and individuals.

## PROJECT EXPERIENCE

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**Banking Backend API | Go, Gin, GORM, PostgreSQL, Docker, Kubernetes** *Mar 2025 – Apr 2025*

- **Description:** Built a scalable banking API using **Go** with **Gin** and **GORM**, backed by **PostgreSQL**. Containerized the service with **Docker** and deployed to **Kubernetes** for high availability.
- **Achievement:** Conducted load testing with **k6** and **Apache Benchmark**; sustained 1000 RPS with < 200ms latency and zero failures.

**AI based Investment Management System | MERN, Redis, AWS, GPT-4o** *Nov 2024 – Feb 2025*

- **Description:** Built a secure, **AI-driven** investment platform using **MERN** stack. Integrated **GPT-4o** for personalized recommendations and real-time stock analysis. Deployed with **Docker** on **AWS**.
- **Achievement:** Reduced API response time from 500ms to 300ms by caching hot data with **Redis** and load balancing via **AWS ELB**.