




Tao Wu

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EDUCATION

Northeastern University, Boston, MA

Expected December 2025

Master of Science in Internet of Things (Electrical and Computer Engineering)

Henan University of Technology (HAUT), Zhengzhou, CN

July 2023

Bachelor of Engineering in Internet of Things

SKILLS

Languages: Java, Python, C/C++, Lua, HTML/CSS, JavaScript, SQL, Kotlin

Frameworks & Web Services: React, Next.js, Node, Express, Spring Boot, Spring Cloud, MyBatis-Plus, Spring Data JPA, RESTful API.

Databases & Cloud Platforms: MySQL, PostgreSQL, MongoDB, DynamoDB, Redis, AWS EC2, AWS S3, AWS SNS.

Tools & OS: Nginx, k8s, Jenkins, Docker, CI/CD, Git, Postman, Linux, Apache Tomcat, RabbitMQ.

EXPERIENCE

Robotics & Software Development Co-op

January 2025 - Present

EasyGo Shipping Solutions Corp

Amherst, NH

- Designed, assembled, and optimized **robotic systems**, performing hardware troubleshooting, maintenance, and upgrades to enhance efficiency and reliability.
- Developed and maintained order management system using **React** and **Spring Boot**, ensuring seamless **frontend-backend** integration.
- Implemented backend optimizations to streamline order management workflows, enhancing operational efficiency.

Co-Founder & Part-Time Full Stack Developer

January 2025 - Present

Stealth Startup

Boston, MA

- Developed a parking rule management system using **Node.js**, **Express.js**, **MySQL**, **Sequelize**, and **JWT**, enabling **POI management**, **CRUD operations**, and **geographic search**.
- Optimized **database performance and API efficiency** using **Sequelize ORM**, improving query execution and system **scalability**.

Software Engineering Intern

November 2022 - February 2023

Starfire Education

Shaoxing, China

- Developed a student learning data analysis management system using **Spring Boot**, **MySQL**, **Redis**, **RabbitMQ**, **React**, and **Redux**. Features included a homepage, homework management, test bank assembly, exam management, order management, and permission management.
- Completed authentication management based on **react-router**, implementing button-level access control to display different menus and buttons according to user roles.

Software Engineering Intern

May 2022 - October 2022

China Mobile

Hangzhou, China

- Developed a smart city management system with a **microservices architecture** using **Spring Boot**, **Spring Cloud**, **MySQL**, **Redis**, and **React**. Key functionalities task management, case management, charging management, material management.
- Implemented stateless single sign-on with **JWT** tokens, replacing the previous cookie session mechanism to address session sharing issues, and used the **OAuth2** protocol for third-party application authentication and authorization.
- Utilized **Redis** for hotspot data caching, optimizing data query time from 116 milliseconds to 20 milliseconds. Implemented a multi-level caching strategy to further reduce data access latency to around 10 milliseconds.
- Supported **multiple cloud services** by deploying the system to various providers like **AWS**, **Azure**, and **Alibaba Cloud** based on customer requirements. Adapted and optimized the system for each provider's API and environment, ensuring efficient and stable operation across platforms.

PROJECTS

Android Monitor System

January 2025 - Present

- Developed an Android-based monitoring system using **Kotlin**, **AWS IoT Core**, **Lambda**, and **DynamoDB** for remote data collection and control.
- Enabled real-time monitoring and remote control of Wi-Fi, Bluetooth, battery, and brightness via **MQTT** and **AWS Lambda**, optimizing user experience and battery efficiency.
- Designed a **scalable, low-latency DynamoDB** schema and deployed backend services with **Docker** and **CI/CD**, ensuring multi-region reliability.

TaskMaster Pro (Project Address: <http://taonasn1.synology.me:3000>)

November 2024

- Developed a modern to-do list application using **React**, **Material-UI** for the frontend, and **SpringBoot** and **MySQL** for the backend, all containerized with **Docker** for optimized deployment and scalability.
- Key features include CRUD operations, task completion toggling, smooth UI animations, dark/light theme support, and **AI-powered** auto-extraction to intelligently identify and manage tasks.

Melanoma Image Generation and Analysis System

November 2022 - June 2023

- Generated images with the **DDPM** model using **PyTorch** and trained dataset of ten thousand images.
- Classified and analyzed images using the **ResNet50 network**.