

About Hua

I am a skilled, detail-oriented and reliable software engineer with 3 years of experience, especially in full-stack development. My expertise includes implementing Web APIs with several languages, building UI/UX based on the modern frontend framework and designing CI/CD pipelines with cloud services.

Recent Projects

1. Orchard Sampling Schedules

Developed a web application for a leading company in the horticulture industry to optimize orchard sampling schedules. Integrated geospatial data, route optimization algorithms, and responsive UI:

- The front end is built with React, TypeScript, Tailwind CSS, and Leaflet, which support dynamic mapping, orchard search, and route management across devices.
- The backend provides RESTful APIs using Flask and SQLite.
- Created an ETL pipeline to process metadata and geospatial data for over 400 orchards, generating SQL and GeoJSON formats.
- Automated CI/CD with GitHub Actions and deployed services to Azure. Utilised Docker to containerize micro-services.

2. ECAN Data Pipeline

Developed a system to aggregate data from over 20 sources, then centralized it into a central database. Web API is provided to the front end, enabling analyses and visualizations:

- Collect more than 20 people's data from the AWS EC2.
- Built data pipelines using Apache Airflow to automate ETL processes.
- Stored data in a PostgreSQL database on AWS RDS.
- Developed a Node.js API with Swagger documentation to serve endpoints.
- Implemented Python Streamlit and R Shiny dashboard to visualise data.

3. Realibox Hub

- Create a 3D assets Hub by using React, Antd and Mobx state management tools.
- Loading GLTF model to the scene, including structure tree, material and mesh.
- Implemented user authentication, authorisation, and other features.
- Upload files to the Aliyun cloud OSS to ensure users can interactively operate.
- Built Language components to support the Internationalisation feature.

4. Real-time Air Quality Index Publishing System

- Extract XML data from a third-party Web service on schedule.
- Transformed data into structured objects and loaded it into a MySQL database.
- Built backend with Java Spring Boot and provided RESTful APIs for data access.
- Built frontend by using React and EChart, visualized AQI trends and geographic distributions through interactive and dynamic charts.

Links

hua.nz

github.com/aemooooon

www.linkedin.com/in/aemonwang

Skills

MySQL / PostgreSQL

MSSQL / MongoDB / Redis

TypeScript / React / Nextjs

Nodejs / Express

Webpack / Vite

C# / ASP.NET

Python / R

Agile Scrum

CI/CD Pipeline

AWS / Azure

Java / Rust

Threejs / WebGL

Docker / K8s

Git / GitHub / GitLab

RESTful API / Swagger

Work Experiences

Software Engineer, Zespri International

November 2024 — February 2025

- Built a complete ETL pipeline for multiple data types.
- Created a map-based and interactive web application that allows users to visualise and interact with GIS data and allocate sampling tasks.
- Optimising routes for orchard sampling schedules.

Software Engineer, Realibox, Guangzhou

August 2021 — February 2023

- Developed and maintained the central hub for Realibox's 3D assets, using React with a WebGL-based library for the frontend and Node.js/Python for the backend.
- Implemented CI/CD pipelines using GitLab for code integration and deployment.
- Worked in an Agile environment, collaborating closely with PMs, QAs, and Designers to ensure feature delivery aligned with requirements.

Frontend Developer, Nuclear Stone Technology, Chongqing

August 2020 — July 2021

- Developed and deployed HTML5 Micro-Apps on the WeChat platform.
- Integrated 3D scene tours, transitions and annotation on the panorama.

Full Stack Contract, Day Digital Technology, Enshi

February 2020 — July 2020

- Developed a real-time Air Quality Index publishing system using microservices, Java springboot backend, React + AntD + Less frontend, and MySQL database.
- Collaborated with a junior frontend developer to develop the UI and integrate the backend interfaces.
- Responsible for the database and backend RESTFul API design and implementation.

Teaching Assistant, Otago Polytechnic, Dunedin

July 2018 — November 2019

I served as a class tutor for the C# programming course, answering questions and also providing peer-to-peer tutoring to students who were new to programming.

Education

Master of Applied Data Science, University of Canterbury

February 2024 — February 2025

Bachelor of Information Technology with Distinction , Otago Polytechnic

July 2017 — June 2021

Awards:

- The Excellence in the Bachelor of Information Technology in 2019
- The Academic Excellence & Best Programmer in 2021

References

Xuewu Wang from Realibox

wangxuewu@realibox.com | +8613415112643

Stephen Fleming

steve.fleming2021@gmail.com | +64 0273552421