Runtian Liang

My profile website | klaytim31@gmail.com | +61 478507802

Education

University of Western Australia (UWA), Master of Professional Engineering (Software Engineering) Jul 2022 – Jul 2025

South China University of Technology (SCUT), Bachelor of Software Engineering Sep 2019 - Jun 2023

Experience

- **Full-stack developer & UX/UI Designer**, UWA Design & Research Project 2024
  - Worked with teams to developed tools for use in real cases at the UWA Dental Clinic and ophthalmology Hospital. Used **Python** for collecting and preprocessing real data.
  - Used **Figma** for page design and **TypeScript** implemented multiple web pages. Designed **RESTful API** for connecting backend and **Prisma** database. Following the agile development model.
  - Used **Websocket** and **socket.io** implemented the real-time network connection communication function.
  - Connect and test Prisma database and API, and deliver work according to the **CI/CD** process of Github action.
  - Use **ngrok** to package and deploy the application to the public network that outsides can access the App.
  - Managed tasks and agile process using **Jira**.

- **Full-stack Developer**, Aperture IT Service Jul 2024 – Dec 2024
  - As an **IT help desk** to provide IT consulting and technical solutions for clients.
  - Developed commercial-grade mini-programs and web apps using **React** and **Vue** Framework. Deployed and maintained projects via **AWS** cloud services and GitHub, ensuring scalability and seamless updates.

- **Data Analyst & Software Development Assistant**, SCUT Dec 2022 – Mar 2023
  - As a mentee and team member, developed a branching feature for a large-scale web tool(**Vue2** framework). enhancing its functionality for time-series data analysis and processing.
  - Researched and applied multiple **analytical algorithms** to improve tool performance and accuracy. Perform data screening, curve fitting and model matching on time series data.

- **Game Designer and Developer**, Netease Games on campus Feb 2022 – Jul 2022
  - As a leader, Planned and implemented a 2.5D Unity game with a team, spearheaded design initiatives, organizing meetings, and delegating tasks.
  - Implemented core game-play features, including character perception systems and logic-driven event mechanics, using **Unity** framework with **C#**.

Projects

- **AI-powered virtual Bitcoin trading system** Feb 2025 – May 2025
  - Using Python developed an AI-powered virtual Bitcoin trading system, designed, integrated and tested different types of **optimization algorithms**, to support customizable trading behaviours and maximize the profits.

- **AI Assistive Tools for the Visually Impaired** Aug 2024 – Oct 2024
  - Developed an embedded hardware tool based on **Raspberry Pi** and **XIAO**. Focus on hardware programming using **Arduino**, and in **Python** backend integrated ChatGPT **AI**-assisted functionality within the tool.

- **3D spatial reconstruction application** Feb 2023 – May 2023
  - Developed a **Python** app (have **MATLAB** version), capable of generating physical model images of real-world spaces based on photos and coordinate information captured by a 3D camera.

- **E-commerce platform** Feb 2021 – May 2021
  - Base on **Vue3** framework implemented Web pages and used **Spring Boot** as backend server.

Technologies

Programming Language: JavaScript, TypeScript, Python, C++, C#, R, MATLAB, SQL, Shell, Bash.

Frameworks/Libraries: React, Node.js, Next.js, Vue, Flask, Vite, React Native, .Net, Spring Boot.

DevOps/Tools: Vercel, Docker, AWS, GitHub Actions, ngrok, Azure, Google Cloud, Figma.

Databases: Supabase, Prisma, MongoDB, Firebase, PostgreSQL, MySQL.

Others: RESTful API, JWT Auth, JUnit, Agile, Microsoft, Jira.