

Yil Verdeja

Software Engineer

An adaptable and detail-oriented Software Engineer with 4 years of experience from embedded software to web development. Specializes in modern, responsive web applications using ReactJS and VueJS, with strong proficiency in NodeJS for REST APIs. Thrives in startup settings, adept at quickly adapting skills to meet evolving challenges. Dedicated to solving complex problems and creating user-friendly, efficient, and impactful applications.

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Relevant Experience

Full Stack Engineer

Feb 2023 - Present // Hong Kong

- ↳ Developed multiple web applications in the educational and healthcare sectors, using ReactJS, NodeJS, VueJS, and managing databases and server-side logic with MongoDB, Firebase, and Supabase
- ↳ Managed full project lifecycle from concept through deployment, using tools like Docker and AWS for performance and scalability
- ↳ Integrated user feedback to enhance application functionality and user experience

Software Engineer @Ampd Energy

Sept 2021 - Jan 2023 // Hong Kong

- ↳ Led the development of a VueJS web application on the Google Cloud Platform for real-time data analysis, significantly enhancing data accessibility and improving operational efficiency
- ↳ Improved firmware testing processes by 75% through the development of comprehensive test plans and regular validation, which bolstered system reliability and performance
- ↳ Authored detailed technical documentation and developed Python libraries to automate system changes and configuration management, facilitating better cross-departmental communication and understanding
- ↳ Designed and implemented tools that reduced field engineer setup times by 30% and minimized system downtime by 40% through more effective troubleshooting and error resolution

Test Engineer @AiSight

July 2019 - Mar 2020 // Berlin, Germany

- ↳ Managed the deployment and functional testing of up to 50 sensor nodes, ensuring high standards of quality and performance, reflecting a strong commitment to product excellence
- ↳ Built a fault simulation machine and developed a testing framework, which enhanced the robustness of fault detection and prediction in hardware and software capabilities
- ↳ Facilitated daily Agile Scrum meetings, optimizing and refactoring code for scalability and functionality, which improved team communication and efficiency in project tracking

Relevant Projects

JemLink // Present ★

An app that enables users to create and manage collections of links, using NextJS for efficient redirection to random URLs within the collections and MongoDB for robust data storage and updating.

A&E Wait Times // Aug 2024 ★

Revamped the Hong Kong A&E wait time site using NextJS and Shadcn/ui, with a Flask backend. Features include responsive design, real-time filtering, and hourly wait trends to optimize visit planning.

Necktie Doctor Booking // June 2024 ★

Built a doctor booking page app with ReactJS and Shadcn/ui that allows patients to schedule appointments with doctors, manage their bookings.

Parking Lot System Testing // June 2024

Developed a NodeJS and MongoDB backend for a parking management system, rigorously tested with Jest and Supertest for unit and e2e integration, using MongoDB Memory Server to emulate real-world multi-user scenarios.

Skills

Programming

Typescript, Javascript, Python, HTML/CSS, C, C++, Java

Web Frameworks

ReactJS, VueJS, NodeJS, ExpressJS, ViteJS, NuxtJS, NextJS

Tools & Infrastructure

Git, Bash, MongoDB, MySQL, GCP, AWS, Firebase, Supabase, Docker, Chrome Dev Tools, Postman

UI/UX Design

Figma, TailwindCSS, Bootstrap, Shadcn/ui

Development Practices

Agile Scrum, CI/CD, RESTful API, MVC, TDD

Education

Worcester Polytechnic Institute

2015 - 2019 // MA, USA

Bachelor of Science in Electrical & Computer Engineering and Robotics Engineering
Minor in Computer Science
GPA 3.93/4.00

Cantonese

2023 - Present // Hong Kong

Currently learning Cantonese and creating tools to promote the language

Device Dashboard // Apr 2024

Developed a NodeJS and TypeScript backend to retrieve device energy savings data, displayed via VueJS in an interactive bar chart, enhancing data accessibility and user experience.

Image Elf // Jul 2024

Developed a ReactJS and HTML5 Canvas application that allows developers to create custom-sized images for edge case testing, featuring web workers for image generation without UI blocking.

Order Local HK // Aug 2023 ★

Developed a VueJS and Firebase web app that enables users to learn and practice ordering food in Cantonese at local Hong Kong eateries, like TamJai Samgor.

Relevant School Projects @WPI

AWS Rana Scheduler // Dec 2018

Designed and implemented a full-stack online scheduler on AWS, utilizing HTML/CSS and JavaScript for the frontend, and deploying a serverless Python backend with Flask via AWS API Gateway and Lambda.

Robotic Elbow Manipulator // Mar 2018 ★

Developed an automated robotic arm in Matlab and C using computer vision, trajectory generation, and motion planning to sort objects by weight or appearance, integrating load sensors for classification.

Gomoku Artificial Intelligence // Mar 2018

Created a Python-based AI for playing Gomoku, employing minimax with alpha-beta pruning and heuristic evaluations; achieved first place in a competitive AI tournament.

Caregiver Dashboard // Mar 2024

Built with ReactJS and TailwindCSS, this admin dashboard features a simple RESTful API in NodeJS for managing caregiver shifts, allowing admins to approve, decline, or search for caregivers by name.

Give Me Love // Feb 2024

A valentines-inspired clicker app that uses ReactJS and Firebase to increment a global counter, fostering a sense of belonging among single people globally.

Canto Numbers // Oct 2023

An app built using VueJS and TailwindCSS for learning how to pronounce and understand numeral concepts in Cantonese

Autonomous Robot Navigation // May 2018

Implemented a Python and ROS-based autonomous navigation system for TurtleBot3 featuring SLAM, real-time A* path planning, and Kalman filter for dynamic environment optimization.

Nobi Wildfire Detection System // Dec 2017 ★

Engineered a solar-powered wildfire detection system using sensors for environmental monitoring, connected via a Bluetooth Low Energy mesh network; won first place in the Robert H. Grant Invention Awards.

Relative Pitch Video Game // Aug 2017

Designed and developed a JavaFX musical game to teach relative pitch, incorporating user feedback from professionals and a survey group to refine the educational approach.