

# STEPHANIE WONG

Singapore | [stephwongwt@gmail.com](mailto:stephwongwt@gmail.com) | [www.stephw.xyz](http://www.stephw.xyz)

Passionate software engineer with a keen focus on optimizing processes and continuous improvement. Proactive team player and a fast learner, with a strong ability to adapt and learn independently.

## SKILLS

### Web Development

- React
- TypeScript
- Next.Js
- ExpressJs
- PHP
- Figma
- REST API

### Embedded Systems

- C/C++
- RTOS
- Modbus
- Wi-Fi/Bluetooth
- STM32L/F, ESP32

### Others

- C# (Unity)
- Python
- Java
- RabbitMQ
- Docker
- MySQL / MongoDB
- Azure Cloud

### Project Management

- Agile Scrum
- Waterfall
- Kanban
- Software Architecture

## EXPERIENCE

### Software Engineer | Government Technology Agency (GovTech) | Singapore, SG

January 2023 – Present

- Designed system architecture for frontend dashboards and backend services.
- Developed fullstack dashboards using Next.js (frontend) and Express.js (backend).
- Built UI/UX with Mantine components and custom icons designed in Figma.
- Implemented Redis for caching and fast in-memory JSON data access.
- Integrated Keycloak for OAuth2 authentication and role-based access control.
- Containerized applications with Docker/Podman and deployed to Azure Kubernetes.
- Enabled real-time communication with RabbitMQ using AMQP and Protobuf.
- Added features to Unity-based digital twin for physical asset management.
- Authored UAT documentation, test cases, and conducted user workshops.
- Addressed vulnerabilities via VAPT participation and resolution efforts.
- Led coding standardization, documentation improvements, and DevOps enhancements.
- Led frontend team and mentored junior developers.

### IoT Systems Engineer | Government Technology Agency (GovTech) | Singapore, SG

November 2019 – December 2022

- Work on a smart garden project, retrofitting lamp posts with IoT-capable nodes.
- Designed software architecture for the end nodes, using Modbus protocols for communication.
- Hand soldered components and created prototypes using STM32 Nucleo boards.
- Collaborated with hardware engineers to create custom PCB boards using STM32L and STM32F microcontrollers.
- Utilized Mbed OS for rapid prototyping, building firmware in C/C++.
- Assumed project lead role, continuing with development, deployment and maintenance of the devices.

Other work experiences at [www.stephw.xyz/cv](http://www.stephw.xyz/cv)

## EDUCATION

### Specialist Diploma in Embedded Software Development | DigiPen Institute of Technology, Singapore

Diploma obtained January 2020

### Bachelor of Science in Multimedia Technology & Design | Singapore University of Social Sciences, Singapore

Degree obtained September 2017

### Diploma in Interactive & Digital Media | Republic Polytechnic, Singapore

Degree obtained September 2017