

# Wilson Sie

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## Skills

**Languages** - Typescript, Javascript, Python, SQL

**Frameworks & Technologies** - React, NextJS, NodeJS, ExpressJS, FastAPI, GraphQL, PostgresQL, Git, Docker, Nginx

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## Experience

### Fullstack Software Engineer

January 2024 - Present

Mastplot - ST Engineering

- Built multiple services by implementing RESTful APIs with MVC architecture using Python FastAPI as a web server and handled API integrations on the frontend. Also collaborated with backend engineers to handle data migrations with Postgres in between releases.
- Led the development of the interactive frontend for a live navigation application used by seafarers, utilizing technologies such as NextJS, Typescript, DeckGL, Maplibre and Tileservr-Gl to ensure smooth navigation even with limited internet connectivity.
- Boosted developer efficiency by 50% by introducing Docker Compose. This addressed challenges of inconsistent environments and difficulty replicating production issues, leading to a smoother development workflow.
- Built container images for services (e.g. Python FastAPI, NextJS) and architected CI pipelines using Github Actions and bash scripting to easily deploy applications to on-premise servers with every push.

### Associate Software Engineer

June 2022 - January 2024

Trustana

- Led the integration of Product Generation, Product Editing and Attribute Management APIs into the frontend application by collaborating closely with backend developers ensuring smooth communication between front-end and back-end services.
- Engineered AWS Lambda functions and APIs orchestrated by a Step function, leveraging parallelism to significantly reduce product data generation time.
- Successfully built and deployed multiple frontend features leveraging optimization strategies such as caching and debouncing, resulting in reduced server load and improving product search times.
- Played a key role in establishing the company's component library using Storybook that was published as a package via AWS Codeartifact.
- Built and maintained reusable components for the component library to be used across different projects to ensure UI consistency and improve developer efficiency.
- Orchestrated the setup of multiple projects and pipelines, enhancing the development and deployment experience for fellow developers utilizing Gitlab CICD and bash scripting.

### Freelance Web Developer

Aug 2021 - June 2022

NKF - National Kidney Foundation

- Collaborated closely with fellow designers to design and develop reusable email templates, contributing to successful marketing campaigns.
  - Applied HTML and CSS expertise to ensure seamless email template formatting, resulting in improved click-through rates and user engagement.
  - Overcame challenges related to email client compatibility in the development process.
  - Engineered responsive design principles to optimize email template content for a diverse range of devices.
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## Education

### University of London

2019 - 2022

B.S (Hons) Computing and Information Systems

### Certis Cisco

Cisco Certified Network Associate (CCNA)

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## Projects

### Code Editor

- This application serves as a browser code sandbox that is able to compile and execute user input code and judge its output performance.
- Technologies used: Typescript, TailwindCSS, NodeJS, Docker, Github Actions

### Design System

- A design system package that provides a set of UI components to reuse across different projects. It is built with React and tested with Storybook. A CICD flow was implemented to automatically deploy to NPM with every push.
- Technologies used: Typescript, TailwindCSS, Storybook, Rollup, Github Actions

### Homelab

- To understand the use of distributed systems, a 4-node cluster was built from recycled hardware that serves as a mini datacenter for self-hosted software projects. This project leverages on containerization technologies such as Docker and Kubernetes that is managed by Ansible scripts for automation. A reverse proxy was also set up to direct incoming network requests to the appropriate services based on domain name.
- Technologies used: Nginx, Docker, Github Actions, Proxmox Virtual Machines, Ansible, Kubernetes (K3s) Shell

### Evergreen

- Written in Typescript and Python, Evergreen is a fullstack application that provides monitoring services for self-hosted apps.
  - Technologies used: NextJS, FastAPI, ExpressJS, Typescript, Python, Postgres, Docker, Github Actions
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