

Surasak Kaewpho

E-mail: surasak.kwork@gmail.com

Mobile: 092-912-4025

Address: Phaholyothin 30 Chankasem Chatuchak Bangkok

GitHub: <https://github.com/Geeleed>

Portfolio: <https://portfolio-next-v2-omega.vercel.app/>



Portfolio website

Summary

I am a Research Assistant with experience in developing programs to control mechanical devices and automate analysis in laboratory. I have skills in modern web frameworks and am looking to transition into a full-time web development role.

I have worked on personal projects that include membership systems, booking, payment systems, dashboards, and connecting to both SQL and NoSQL databases, AWS S3 cloud storage services. The main stacks I use are Next.js/React.js, TypeScript, Tailwindcss, Node.js, Express.js, and Python.

My work focuses on problem-solving to achieve desired results with any technologies, as I can quickly learn new tools and technologies. I enjoy applying my knowledge to build new products that enhance efficiency in development and streamline future projects.

Hard skills

Languages

- HTML, CSS, JavaScript
- TypeScript, Node.js, SQL
- Python, Fortran, Wolfram

Frameworks

- Next.js, React.js
- Tailwindcss
- Express.js

Tools

- PostgreSQL, MongoDB, Redux
- Postman, GitHub, Docker
- VScode, Windows, MacOS

Personal projects

- WINWIN : PWA for exchanging second-hand items platform. It has a concept like “Tinder”—match and exchange. It uses PostgreSQL and AWS S3.
- Hotel : PWA example for booking rooms with an admin system. It uses MongoDB and the Stripe payment gateway.
- Diary : PWA for recording your stories. It integrates AI (Gemini) to recommend life tips and encourage you every day.
- Snack : PWA that helps you compare product prices per unit.
- CapLink : PWA for shortening your URLs.
- Authenticator : PWA and library that I developed for two-factor authentication. It generates dynamic passwords like “Google Authenticator.”
- Sticky Note : PWA for short notes. You can add hashtags or change the paper color. It functions as a CRUD system.
- Other projects both frontend and backend you can view in my portfolio website and GitHub in the head of resume.

Job experiences

2562 – Now: Research Assistant

- Use Next.js for develop the GUI and develop the APIs for control the machine by python.
- Use Python to simulate the physical phenomena of the diffraction image by reflection from the reflector.
- Use Python to simulate the ray tracing in 3D to study the behavior of the image by diffusion and reflection and derive the formula for measuring the height of the surface.
- Use Python to simulate the distorted image by the real dimension of the optical lens.
- Reverse engineer of the algorithm for measuring the angle in industrial factory.
- Design and build the prototype of a high-resolution angle measurement tool.
- Design a mathematical model for measuring the height profile in 3D.
- Estimate the uncertainty of measurement with the Monte Carlo simulation.
- Derive the mathematical model for simulating the diffraction image by many surfaces.

Others

I can learn by myself (all knowledge for web developments) in new technology, physics, mathematics, and computer science. I have ever been an IT support assistant in high school for 4 years, fixing, repairing, installing accessory software, and reinstalling the OS on PCs.