Loke Kum Yew

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GitHub: https://github.com/auan369/
Portfolio: https://kyloke-portfolio.vercel.app/

Web and Mobile Developer | Data Analyst and Python Developer | STEM Curriculum Developer

Career Interest

I am a software developer focused on building impactful software systems and web applications. Combining a strong engineering background (Robotics & Mechatronics, NTU, First-Class Honours) with software development and data analytics, I'm passionate about applying engineering precision to solve real-world problems, especially in data analysis, content optimisation, and web/mobile development.

Outside of work, I enjoy analog photography, sports, nature hikes, and travelling, and I'm a dedicated parrot owner. Open to new opportunities in software development and data analytics and eager to connect with others in tech and innovation!

Skills

- **JavaScript (ES6, Node.js, React, React Native, Express.js)**
- **HTML5, CSS**
- **Python, C++**
- **MongoDB, PostgreSQL, Firebase, MySQL)**
- **UI/UX Design (Figma, Adobe Illustrator)**
- **Git, GitHub**
- **Vercel**

Education

Bachelor of Engineering
Mechanical Engineering with Specialisation in Robotics & Mechatronics
Nanyang Technological University
AUG 2021 - JUN 2024
First Class Honours (Distinction), 4.91/5.00

Meta React Native Certification
Meta React Native Specialisation
Meta & Coursera
JUN 2023 - OCT 2023

Experience

Engineering Intern (Data Analysis, Product Design)
Dyson
AUG 2023 - AUG 2024

• Integrated an Arduino-based IMU for more accurate data collection and to draw insights

• Processed and analysed IMU sensor data to inform design improvements

• Developed data processing algorithms and 3D visualisations for data-driven design optimisation based on interaction insights

• Partnered with design teams to apply data insights, improving product usability and performance

Projects

Tamagotchi-Inspired Pet App

• Web-based pet app where users care for a digital pet by managing hunger, and happiness, through activities like feeding, mini-games, and cleaning.

• Built with a React frontend for real-time updates and a backend API connected to MongoDB to store pet and user data

• User interface designed to be reminiscent of classic virtual pet games

• Deployed both frontend and backend on Vercel for smooth performance

• Reference to the GitHub repository and Live Demo

WeatherAtYourLocation: Real-Time Weather Application

• A responsive web app that provides real-time weather information, 3-hour forecast reporting based on users' location

• Utilises IPinfo API for location services based in IP address and OpenWeather for live weather data and forecasting based on location

• Reference to the GitHub repository

Cluck Food App

• A mobile application capstone project for Meta React Native Specialisation

• Designed to enhance the restaurant experience, provides users with an interactive platform for ordering food and discovering menu options

• Employed extensive UI/UX planning, including wireframes and prototypes, user journey mapping, and iterative design improvements

• Reference to the GitHub repository

Thesis Publication in the ICSR + BioMed 2024 Conference

• *"Personalised 3D Human Digital Twin with Soft-Body Feet for Walking Simulation"*, was published at the ICSR + BioMed 2024 Conference.

• Final Year Project with the Rehabilitation Research Institute of Singapore

• Enhanced human-robot interaction simulation, implementing soft-body physics to replicate human tissue and improve modelling accuracy

• Utilised Python APIs, custom C++ scripting, and data visualisation, gaining skills in source control, testing, debugging, and team collaboration

• Reference to the paper