Loke Kum Yew

Mobile: +65 8874 7805
Email: lokekumyew@gmail.com
LinkedIn: https://www.linkedin.com/in/kum-yew-loke-74a0b0205
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!

Experience

Freelance Web Developer
Self-Employed | Dec 2024 – Present
- Developed custom WordPress plugins with MySQL, AJAX, and shortcodes for seamless integration.
- Built drag-and-drop hierarchy management and interactive loot-drop systems.
- Designed REST API endpoints for efficient data retrieval and management.
- Optimized database queries and implemented real-time UI updates.
Tech stack: **WordPress, PHP, MySQL, JavaScript, React, Node.js, MongoDB**

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

Education

Bachelor of Engineering: Mechanical Engineering
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

Projects

Multiplayer Rock Paper Scissors WebSocket Game
- Real-time multiplayer Rock Paper Scissors game that allows players to create or join game rooms, play rounds with others, and receive instant feedback on game outcomes
- Features a dynamic backend powered by WebSockets for seamless real-time communication and a responsive frontend for engaging user interaction
- Supports room management, live updates, and multiplayer function
- Reference to the GitHub repository and Live Demo

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 mimic 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 on IP address and OpenWeather for live weather data and forecasting
- Reference to the GitHub repository

Cluck Food App
- React Native mobile app for seamless menu discovery
- Features intuitive UI/UX with wireframes, prototypes, and user journey mapping
- Capstone project: Meta React Native Specialisation [GitHub]

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