Ng Yi Kai

ykng0508@gmail.com | (+60) 16-7282865 | Kuala Lumpur, Malaysia | LinkedIn | Website | Github

Professional Experience

Aiodin Tech | Software Engineer (Full Stack)   August 2022 - Current

Primarily focused on developing projects using React, Angular , Laravel and etc.

- Introduced Datadog to enhance log management capabilities and Sentry for robust error tracking, significantly reducing the mean time to resolution (MTTR) for bugs and issues by 30%.
- Introduced a Docker-based workflow that reduced environment setup times for new projects by 50%, significantly speeding up the development lifecycle.
- Optimized SQL queries for a high-traffic application, achieving a 20% improvement in load times.
- Utilized Redis to optimize database queries, reducing server load by 15%.
- Refactored critical sections of the codebase by decoupling and making it scalable using Laravel Queue, resulting in significant performance enhancements. By converting synchronous code to asynchronous, the system can run multiple tasks concurrently, achieving performance gains proportional to the number of queue workers.

Trinity Wizards | Software Engineer (Full Stack)   August 2021 – August 2022

Primarily focused on developing projects using React, Angular, Laravel, Next.js and etc.

- Spearheaded a UI overhaul, leading to a 20% increase in user retention rate.
- Re-architected the application to adopt microservices, enhancing modularity and enabling easier scaling of specific features.

Konrad Group | Software Engineer Intern (Full Stack)   June 2021 - August 2021

Primarily focused on developing projects using React and Next.js.

- Developed and maintained front-end coding standards and components, resulting in a 20% increase in code quality and improved website performance.
- Created and maintained technical documentation, improving team efficiency and reducing the average project delivery time by 10%.

Hackajob | Software Engineer Intern (Backend)   June 2020 - August 2020

- Optimized database queries and indexing strategies of Java and Spring application, resulting in a 50% improvement in page load times and reduced server load.
- Implemented advanced filtering options to refine search results and improve the user experience.

InspireNow | Software Engineer Intern (Backend)   June 2019 - August 2019

- Developed and maintained web application using Python and Django. Optimized the application for performance, resulting in 30% reduction in page load times and 25% increase in user engagement.
- Tested and debugged code to ensure compatibility and stability, resulting in a 15% reduction in website errors and improved website functionality.

Relevant Experience/Projects

Personal portfolio website & GitHub

- **Portfolio website**: https://ngyikai.netlify.app
- **GitHub**: https://github.com/NgYiKai
- Developed a personal portfolio website using React to showcase my work and provide more information about my skills and projects.

Interpreter for custom scripting language
- Developed an interpreter for the scripting language Kai, written in Java.
- Kai is a full-featured, efficient scripting language with rich syntax, dynamic typing, garbage collection, lexical scope, first-class functions, closures, classes, and inheritance.

Decentralized Content-Addressable File Storage System
- Built a fully decentralized and distributed file storage system using Go, capable of handling and streaming large files efficiently.
- Worked with low-level programming and network protocols to optimize data transmission and file sharing among peers.
- Explored and applied concepts from distributed systems, including data replication, consensus algorithms, and peer-to-peer networking.

E-commerce store
- Developed a fully functional e-commerce platform for custom phone cases using React, Next.js, TailwindCSS, Prisma and Postgresql.
- Integrated secure payment processing using Stripe and implemented authentication with Kinde.

Redis Clone
- Built a Redis clone in C++ capable of serving basic commands and reading RDB files.

Inventory Management App
- Built a mobile app to track inventory items and transaction history using Java in Android Studio with a Firebase backend.

Queue Management System
- Developed using PHP and MySQL in collaboration with the school's marketing department, this system enables the efficient handling of up to 2,000 attendees with just 20 staff members during education fairs.

Skills/Interests/Miscellaneous

Languages: HTML, CSS, JavaScript, TypeScript, C, C++, Python, Java, Go, PHP, SQL
Technologies: React , Angular, Laravel, Firebase, Bash, Git, MySQL, Docker, Vite, TailwindCSS, Bootstrap, Node.js, Spring, Linux, GraphQL , Nest.js
Certifications: AWS Certified Solutions Architect – Associate
Interests: Outdoor activities, TV show, Food, Coffee, Gaming

Full professional proficiency in English, Chinese, Malay and Cantonese
President of the Scout Club during secondary school

Education

University of Nottingham   Sept 2019 - Sept 2022
BSc (Hons) Computer Science
- **Courses:** Compilers, Artificial Intelligence, Information visualization with R, Computer Security, Operating Systems, Image Processing
- **Computer Science Society – Technical Team**
  Led the organization of several coding workshops