Zhipeng Guo

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Introduction

Hello! My name is Zhipeng Guo, and I'm a full-stack developer with expertise in building intuitive, scalable applications. I specialize in front-end technologies like React, Next.js, and Tailwind CSS to craft responsive and user-friendly interfaces, and I'm also proficient in back-end development using Node.js and related framework such as Express.js, and database systems like MySQL and MongoDB. I have hands-on experience with RESTful APIs, Agile methodologies, and cloud platforms such as AWS, Digital Ocean. I'm passionate about solving complex problems, collaborating with teams, and delivering impactful solutions that meet both user and business needs. I look forward to contributing my skills to your team and project!

Work Experience

Aiims Group   May. 2024 — Present   **Fullstack Software Engineer**

DCT Club Giveaway App:

- Developed a **React Native** app for managing content and event giveaways, including features such as finding closest partners, purchasing entries, updating event end dates, and drawing winners for prizes of $250k every month. Led the development of an app downloaded over 500 times on Google Play Store.
- The application is deeply integrated with Stripe Payment system, using **Stripe API**, the user can complete payment easily.
- We also integrated with Expo Camera, so that customers can scan the partner QR code and get the discount in our events.
- The DCT platform now consistently attracts over 10,000 active users per month across its apps and website, generating steady revenue for the organization.

Custom Zoho Hailo Center:

- **Developed a Custom Web Application**: Designed and built a tailored web application to streamline internal operations, significantly reducing costs, saving time, and conserving resources. Leveraged **Next.js** as the framework and **TailwindCSS** for styling. Data was stored on **DigitalOcean** and managed using **MySQL**, encompassing over 30 structured tables. For file storage, DigitalOcean's **AWS S3**-compatible buckets were utilized, and the application was deployed on its **cloud service**.
- **Backend Architecture**: Utilized **Express.js** to develop over 300 robust **REST API** endpoints, enabling seamless communication between the frontend and backend. Implemented **JWT** authentication and **CORS** configuration for secure data transmission and better protection of sensitive information.
- **AI Integration**: Incorporated the **ChatGPT API** to provide staff with rapid summaries of business-related content, including phone calls, messages, and emails, reducing response time to just seconds.
- **Task Scheduling**: In order to run necessary daily tasks, we created multiple **cron jobs** within a **Linux** cloud environment to manage and automate daily API requests efficiently.
- **State Management Optimization**: Integrated **Zustand** for state management to handle the application's scale and complexity. This made the codebase cleaner, easier to maintain, and more efficient for future development.
- **API Optimization**: Resolved an inefficiency causing **20,000** unnecessary API requests daily. After thorough investigation and implementation of an optimized solution, reduced requests to **100–300** per day. This resulted in significantly enhanced system efficiency and substantial cost savings.
- **Automated Website Creation System**: Designed a system that automates the process of website creation. Users input content, page titles, and URLs, and the system generates the website structure autonomously. Leveraging **AI**, the system also summarizes company content to streamline workflows, save design team hours, and improve process transparency.
- **Workflow Automation**: Automated a substantial portion of company workflows using the web application. These optimizations reduced time costs across various departments, contributing to budget savings, improved operational efficiency, and better resource allocation.

Internal Proposal Website:

- Designed and implemented a **Next.js** website to automate proposal generation, including products and inclusions ordered by clients. Integrated the website with our Hailo Center to create a seamless, click-and-drag experience. Users can generate proposals containing all necessary information from our **CRM** system and include an acceptance functionality, streamlining the process and enhancing user convenience.
- Enabled direct communication and automated proposal approval, reducing turnaround time for customer deals. Staff now only need to click to send product proposals, then wait for client feedback, improving efficiency and speeding up the approval process.
- According to the research, 70% of users are mobile users, in order to accommodate this, **responsive design** with full functionality was used to enhance a better experience for the mobile users.

TikTok-Style Video Content App:

- Created an interactive video content app using **Next.js** and **Chakra UI** integrated with **Strapi CMS**, enabling clients to easily manage and upload videos with titles and descriptions.
- Implemented intuitive swipe functionality, allowing users to swipe to explore more videos, and to view sub-videos related to the main content.
- Streamlined video uploads and organization, empowering clients to efficiently upload and manage their video libraries, Storing and deployed on the **AWS** cloud service.

Delivery Box Advertisement Display:

- An innovative project was developed to install LCD screens on the delivery boxes of Uber Eats and Menulog drivers, showcasing advertisements while the drivers are on the road. A web portal was created as a reporting system, allowing users to monitor the number of active drivers, track their routes on a map, and visualize a comprehensive heatmap of driver activity. The portal also enables users to view detailed metrics, such as the number of ads displayed, their duration, and frequency throughout the day.
- To optimize performance, a load-balancing service was implemented to dynamically allocate resources for communication between drivers and the backend. **RabbitMQ** was utilized to establish a queuing system, enhancing the efficiency of streaming message exchanges between drivers and the server. The **WebSocket** protocol was employed to facilitate real-time communication.
- Additionally, the **Mapbox** API was integrated to visualize driver routes and generate heatmaps of rider activity, providing insights into areas with higher rider demand. This system offers a holistic view of operations, enabling better decision-making and resource allocation.
- Using **MongoDB NoSQL** and **Mongoose** package to manipulate the data we have, creating and storing the data on **AWS** Cloud service.

TCS Group	Oct. 2022 — Oct. 2023	**Fullstack Software Engineer**

- Tenure at Tata Consultancy Services (TCS)Spent 2022–2023 focusing on self-improvement, Dedicated over 500 hours to learning **React.js, Next.js, Java**, **Networking,** and **OS** Concepts, gaining hands-on experience and staying current with industry trends.
- Developed a personal portfolio website showcasing my skills and projects, and created a **React.js** puzzle Game, "2048", move and merge the same tiles into higher numbers to get high score, inspired by the game "Three".

Monash University   Mar. 2022 — Aug. 2022   **Lead Full Stack Programmer**

- Developed 'Emission Tracker', a **PHP** web application, which tracks the emission footprint of the user. Integrated with **Google Map API**, deployed on **AWS Cloud**.User can track how much carbon emission they produced based on their travel data, with the potential to reduce emissions by up to 15% per user through awareness.
- Enabled **route generation** and emission calculations for over **1000** user-entered destinations during initial testing.
- Includes a personal progress and achievements system that increased user activity by 40% to motivate user competition in reducing emissions. It also encouraged collaboration among 100+ participants, by implementing a reward system for completing weekly and global challenges.

Personal Projects

- **Resume GPT:** A customizable react GPT ChatBot component, published on NPM(resume-gpt-chat), you can use your information and API key to easily create a personal chatbot, it will analyse the information and answer any questions based on the user's question in the chat format. You can also customize the chatbot, such as size, color, animation, model temperature, and max output tokens allowed. Using **React.js**, **TailwindCSS** and **Vite**, integrated with DeepSeek AI. Users can also choose **ChatGPT** as the model since DeepSeek AI use ChatGPT-like API.
- **Puzzle Game 2048**: Inspired by the popular puzzle game 2048 on **IOS**, using **React.js** with **Next.js** framework, deployed on **Vercel**.
- **Personal Portfolio**: using React.js with Next.js framework and Tailwind, deployed on Github Pages. All my information can be found there, and all the code can be found on my GitHub page.
- **Youtube Home page Responsive clone**: using **React.js**, **Next.js**, **Tailwind**, deployed on Github Pages, 100% impersonation of YouTube homepage, with resizable Navbar, as well as mobile version of the website.
- **Android Fitness App**: using Android studio **Java**, with third party APIs such as **Facebook share**, **weather API** to show current weather, and **Map API** to show current location and marks on the map.
- **IOS Game Flip Card**: using **Swift**, developed on Xcode, memorise the cards, and flip the same cards to score, you can also change the setting to modify the game difficulty or change cards colour.
- **Board Game Azul**: using **C++** created a console game based on real world board game Azul, two players take turns to place the tile on board, win the game by winning most points based on game rules.

Education Background

●	2016 - 2017	RMIT	Diploma of Information Technology
●	2017 - 2020	RMIT	Bachelor of Information Technology
●	2021 - 2022	Monash University	Master of Information Technology

Skills

• Programming languages: JavaScript, TypeScript, PHP, HTML5, CSS, Java, Python, C++, C#
• Framework: React.js, Next.js, React Native, Express.js (Node.js), Redux, Zustand
• Mobile Development: Android App Development
• Tools & Platforms: AWS, Strapi CMS, Google Cloud, Microsoft Azure
• State Management: Redux, Zustland
• Database:MySQL (design and manipulation), MongoDB

• Other knowledge: Agile Methodology, Browser Rendering Pipelines, Event Loop and Event Handling, Networking Concepts, Unix-like Systems, CRM Development, Computer Hardware, Unity3D (with C#)