ALEX LI

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SUMMARY

Alex is a dedicated software developer with a strong passion for both frontend and backend technologies. With three years of programming experience, he excels at crafting visually appealing and highly functional software solutions. Alex has demonstrated strong teamwork and problem-solving abilities, consistently tackling challenges and contributing significant value to each project.

TECHNICAL SKILLS

Frontend:	React, Next.js, JavaScript, TypeScript, jQuery, HTML, CSS, Tailwind CSS, Sass, Redux, Google Analytics
Backend:	Node.js, Express.js, Flask, RESTful APIs, GraphQL
Databases:	PostgreSQL, MySQL, MongoDB, Mongoose, Prisma
Tools:	Git, GitHub, Jest, Postman, Jira, Agile, Notion, IBM Watson Assistant
Cloud:	Vercel, AWS, Google Cloud, Tencent Cloud

WORK HISTORY

Melfish: Front-End Developer 2023/10 - 2023/6

- Developed an app that allows users to create events, choose to participate in events of interest, and share updates about their activities. The application was constructed using Next.js, TypeScript, React Form Hooks, Axios, Tailwind CSS, ESLint, Prisma, and PostgreSQL.
- Enhanced code quality and consistency by implementing TypeScript for type checking and enforcing coding standards with ESLint. This approach improved code readability and maintainability, allowed for smoother refactoring, and facilitated better team collaboration by catching type-related errors at compile time, thereby reducing runtime issues. This also increased the efficiency of code maintenance and collaborative programming among team members by 30%.
- Implemented interactive form components using React Form Hooks for efficient state and event management, addressing industry pain points related to complex form logic and data handling.
- Created reusable components such as Carousel, ensuring code reusability and promoting a modular and efficient development approach, which reduced code duplication, improved maintainability and reusability. Decreased the total code volume by 13%.
- Utilized React hooks for state management and side effects, creating custom hooks to monitor global click and keyboard events. Additionally, integrated Google Analytics to track user preferences and behavior, enabling more detailed user analysis. This combination enhanced application responsiveness and user experience, meeting the need for real-time feedback in the event management industry and improving the ability to optimize user interactions based on analytical insights.
- Utilized Axios to access map APIs, developing interactive features for address search and reverse geocoding. This enhancement improved user experience by providing precise and intuitive location-based information, with each user making an average of 23 API calls.
- Facilitated streamlined and efficient application interface development by leveraging Tailwind CSS's utility-first approach and responsive design capabilities. Configured a customized theme and utilized Tailwind's pre-defined utility classes to achieve consistent styling across components, reducing the need for custom CSS. The modularity and reusability of Tailwind CSS led to a 27% reduction in code volume.
- Utilized Prisma and PostgreSQL to establish and configure a well-structured database for effective data management. Additionally, optimized database performance by implementing B-tree and GIN indexes, significantly

improving query speed, especially for full-text search and large dataset queries. This optimization resulted in a 40% reduction in query execution time and enhanced overall efficiency for handling complex data operations.

- Utilized Git and GitHub for version control, ensuring a smooth and collaborative development workflow.

PROJECTS

Car Park Renting Platform 2023/2 - 2023/6

- Implemented a complete car park renting platform with features such as car park booking, payment processing, and merchant onboarding. The application was constructed using TypeScript, React Form Hooks, Axios, Flask and Mysql.
- Implemented a parking space recommendation system that utilized collaborative filtering to enhance user experience. By analyzing different ratings, geographic locations, and historical orders, the system recommended parking spaces tailored to user preferences. This approach improved the user's filtering efficiency by 60%.
- Developed and integrated an AI chatbot using IBM Watson Assistant, streamlining the user experience by providing instant responses to queries related to parking space availability, booking processes, and payment options. This enhancement reduced user interaction time by 40%, significantly improving customer satisfaction and operational efficiency.
- Primarily responsible for backend construction and recommendation system establishment, involving skills such as Flask, RESTful APIs, and Tencent Cloud.
- Integrated Jest for unit and integration testing, automating test processes to ensure code quality and catch potential bugs early. This helped maintain high stability and reliability throughout the development lifecycle.
- Implemented a CI/CD pipeline using GitHub Actions, automating testing, building, and deployment processes. This enabled quicker, more reliable releases and minimized manual intervention, significantly improving code quality and deployment efficiency.

Cloud-Based Sustainability Assessment Platform 2022/6 - 2022/8

- Implemented a cloud-based sustainability assessment platform for industry organizations, hosted on AWS.
- Designed and implemented a comprehensive system architecture, including a React-based frontend, Flask-based backend, and MongoDB database.
- Developed features for collecting various consumption and preservation metrics, providing a sustainability score and actionable suggestions for improving business operations.
- Managed the setup and deployment of the frontend and backend services, ensuring smooth operation on local environments and cloud infrastructure.
- Conducted thorough testing and validation of the platform, ensuring data accuracy and system reliability.

EDUCATION

University of New South Wales
Master of Information Technology 2021/2 - 2023/5
WAM: 78/100

Henan Institute of Science and Technology
Bachelor of Information Technology 2016/6 - 2020/9
GPA: 3.2/4