Kexi Dang

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EDUCATION

Rice University 2018.7 - 2019.12
- Master of Computer Science, GPA 4.0/4.0
- TA for Web development course (React) in Spring 2019 and Fall 2019
- Keep learning from Twitter / Github / Blog

Beijing University of Technology 2010.9 - 2014.7
- Bachelor of Engineering - Computer Science
- Key Coursework: Programming Language, Data structures and Algorithms, Discrete mathematics, Operating System, Computer Network, Software Engineering, Compiling Principle
- GPA: 3.84 / 4.0

PROFESSIONAL EXPERIENCE

XuetangX—Rain Classroom, Senior Front-end Engineer, Oct 2021 - Present

1. Development of Core Features for Rain Classroom Web Version
- Participated in the development of the teaching evaluation system, designing questionnaire-related data structures to facilitate data transfer and visualization.
- Contributed to the development of teaching/learning logs, refactoring thousand-line single-file components to achieve modularization for use across multiple business lines, improving development efficiency.
- Maintained and developed subjective question grading functionality, implementing PDF display and annotation support using pdf.js, enhancing user interaction experience.

2. Development of Classroom Report
- Led the development of new teacher and student-side classroom reports, a major project requiring extensive communication with product, backend, and testing teams. Proactively listed modification points for each feature during testing, highlighting areas requiring special regression testing.
- Spearheaded the upgrade to Vue 2.7, addressing issues with Mixins such as naming conflicts and difficulty in tracing property sources. Use Composition API to improve code reusability, establishing best practices for subsequent projects.
- Optimized video player functionality, including paragraph merging involving duration calculations and event listening. Implemented subtitle support, addressing cross-origin issues and modifying video request methods.

3. Front-End Architecture for Teaching Command Center Client Project
- Led the adoption of Electron + Vite + Vue tech stack, establishing development standards, log collection, and deployment processes.
- Designed and implemented a custom component library, supporting theme color customization, improving code reuse and development efficiency.
- Built CI/CD pipeline supporting cross-environment packaging, significantly enhancing development and release efficiency.

- Created comprehensive documentation on project structure and coding standards, facilitating future iterations and onboarding of new developers.

4. AI Project Setup and Integration
- Established a new AI frontend project integrated with existing business systems using iframe technology. Implemented solutions for reflecting iframe internal routing changes in browser address bar and passing complete URLs during page refreshes.
- Implemented AI dialogue using SSE-based approach, optimizing streaming response display for enhanced user experience.
- Explored integration scenarios for Chrome AI with business applications.

5. Front-End Technology Stack Upgrade and Performance Optimization
- Led the upgrade to Vue 2.7 and introduced VueUse, leveraging new syntax features to boost development efficiency.
- Progressively optimized Rain Classroom PC page load speeds and static resource loading. Through build and packaging analysis, load method adjustments, component refactoring, and internationalization optimization, reduced JS static resource size by one-third for key pages, improving both CDN storage efficiency and user experience.
- Transitioned from Webpack to Rust-based Rspack for build processes in a large Vue multi-page project, reducing build time from 137s (Webpack) to 42s (Rspack).

Schlumberger，Full-stack Software Engineer，Feb 2020 - Aug 2021
- Developed a well trajectory project based on Angular, including modules for graphical visualization, automated calculations, and tabular data (Angular, RxJs, NgRx).
- Contributed to the GAIA GISMap project, responsible for full-stack development using NestJS and Angular tech stack. This involved designing and implementing RESTful API interfaces, map rendering, geographic data visualization, and interactive markers.
- Set up front-end unit testing and E2E testing, defined testing standards, and integrated the testing phase into the Azure DevOps CI/CD pipeline. Used Jasmine for Unit test and Playwright for E2E test.
- Optimized page performance by implementing techniques such as lazy loading, handling static resources, and replacing image formats, aiming to reduce FCP and LCP times.

Listed below are the work experiences prior to pursuing a master's degree in the United States in 2018.

XuetangX—Rain Classroom，Front-end Engineer，Nov 2017 - Jun 2018
- Built a Mini-program(named Rain Classroom) in WeChat, a tool for better teaching and learning. The active users are more than 2 million people among 20+ thousand classes used in Tsinghua University.
- Implemented the front-end functionality by using HTML5, SASS, JavaScript, AJAX (Fetch API), routing function by Node.js, real-time communication by WebSocket, processing multiple tasks by Gulp.
- Designed RESTful APIs with other colleagues in the back-end group.

Baidu Online Network Technology (Beijing) Co.,Ltd，Front-end Engineer，2017

- Built the SP A page of visualization of English knowledge graph using React, ECharts, Service Worker (PWA) and dealing with CORS.

- Constructed new Web platform for data collection and diagnosis. We manage the click rates of advertisements in Baidu Wenku by using the platform.
- Involved in Baidu's FIS (Front-end Integrated Solution) to further understand front-end engineering, which can define development rules, manage static resources, build a scaffold, test codes, launch and deploy codes, etc.

Beijing Lianjia Sci & Tech Co.Ltd, Front-end Engineer, 2016

- Used PHP Smarty template, Less, requireJS to modularize the codes and have better cooperation with team members both front-end and back-end.
- Built a recruitment website which users can have access to the functions of the homepage, job-list page, job details and Lianjia's profile in both PC and mobile devices.
- Achieved functions of house type images, users reviews, house type introduction, building details, and converted these functions into components by using module pattern and shared with other colleagues.