

Zhang Xiaoqian

Web Developer

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SUMMARY

Currently working at Baidu, focusing on the compilation and performance optimization of mini programs, with 5 years of frontend experience across multiple large-scale frontend projects. Enjoys solving challenging problems and emphasizes code quality, hoping to create things that are beneficial to others.

WORK EXPERIENCE

Baidu Software Engineer

Jul 2019 - Present | Beijing, China

Mini Program Developer Tools - Compilation

(Node.js, Esbuild, Pkg) 2022.4 - 2023.10 - Core Developer

The compilation of mini programs is a critical aspect of the simulation, debugging, localization, and preview release process in mini program development. I participated in designing the new compilation architecture and independently implemented complex compilation processes for entries and CSS.

- Addressed issues with compilation performance and stability; improved performance by introducing concurrency and merging multiple AST parses, resulting in an 85% increase in full compilation performance and a 70% increase in incremental compilation speed.
- Optimized code; developed more granular features of the PostCSS plugin, optimizing the CSS processing flow.
- Resolved packaging performance issues; utilized Esbuild and multi-threaded Terser to optimize mini program packaging performance. Summarized best practices for multi-thread compression, resulting in a 77% increase in compression performance.

Low-code SDK for ERNIE Bot

(Rollup, San, Less) 2023.10 - present - Leader

A low-code framework for developers of the ERNIE Bot. Developers can generate plugin UIs through JSON config. Currently integrated on multiple large model platforms at Baidu; as the project leader, I finalized the architecture design and constructed the project from the ground up.

- Supported developers to create custom plugin UIs by coding JSON, running on multiple AI models.
- Supported UI components such as markdown, dynamic charts, and biomolecules.
- Integrated with CI/CD pipeline and testing.

Mini Program Runtime Framework

2020.4 - 2022.4 - Core Developer

- Improved performance by preloading resources and optimization of components.
- Enhanced the error monitoring system for the framework.
- Addressed 230+ issues reported by developers.

PROJECTS

zone: a mastodon client

Developing with React: A nimble Mastodon web client, support the most common use cases.

vs-emoji-intellisense

Vscode Extension: Provides intellisense, search and preview of emoji.

san playground

Developing with Vue: An online code Editor for San.

STACKS

Frontend TypeScript, JavaScript, React, Vue, Vite, UnoCSS

Backend Node, Serverless

DevOps AWS, Azure

Languages Java, C/C++

EDUCATION

GIS, Master of Science, Wuhan University, Wuhan

Sep 2016 - Jun 2019

GIS, Bachelor of Science, Wuhan University, Wuhan

Sep 2012 - Jun 2016

LANGUAGES

Chinese (Native speaker), **English** (Fluent)

Online Version