Xiuping Hu

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Senior Software Engineer

Education

Nanjing agricultural university 211 Sep 2014 - Jan 2019

botanic protection / agricultural bachelor Bachelor

Experience

Huawei Hangzhou Research Institute May 2022 - Jul 2024

1.DevEco Profiler (HarmonyOS Native App Profiling Tool):

Project Background: As the **front-end lead**, I led a 5-member team to develop the **performance analysis plugin** for DevEco Studio **IDE**, providing Instruments-like optimization capabilities for HarmonyOS native applications, with support for real-time performance data collection and visual analysis.

System Scale: 5 modules, 30+ components, 2 pages

System Highlights: Clean architecture, adhering to **SOLID** principles, employing a layered modular architecture, efficient rendering performance, supporting **smooth real-time chart rendering**, complete engineering practices, with 90%+ automated test case coverage.

Personal Contributions:

- Designed, completed, and maintained the front-end architecture.
- Analyzed, located, and optimized issues such as front-end rendering lag and memory leaks.
- Designed and completed the automated testing architecture, which can directly map business logic through event-driven mechanisms.
- Provided support to team members.

2.Ascend Profiler:

Project Background: As the **front-end lead**, I led the team in developing a cross-platform distributed AI performance analysis tool that supports operator-level performance tuning for multi-GPU clusters, and integrated it into the development workflow as a VS Code plugin.

System Scale: 8 modules, 50+ components, 5 pages, covering PC, plugin, and client-side platforms.

System Highlights: Employs a **micro-frontend architecture**, smoothly reusing DevEco Profiler front-end capabilities, with strong isolation, and no impact during collaborative development with other teams. The system supports distributed deployment, identifying long-running tasks in AI model training and optimizing operators.

Personal Contributions:

- Designed and completed the main application architecture and inter-application communication mechanism.
- Migrated the original front-end interface.

3.HarmonyOS Migration Progress Statistics Platform

Role: Project Leader

Team Size: 2 people

System Scale: 2 modules, 20+ components, 1 page, covering PC and mobile platforms.

System Highlights: Employs an SSR, adapting to the needs of rapid development iteration, rapid deployment and launch, and low maintenance costs (emergency development, deployment, and launch process completed in 10 person-days).

Personal Contributions:

Technology selection, design, completion of architecture and requirements development.

Team Activities:

- Led 20 hours of front-end technology training sessions within the department and wrote 3 front-end technical articles.
- Hosted 12 Rust language exchange meetings within the department.
- Provided technical support to other colleagues in the department.
- Developed a rendering frame rate statistics tool using Python for test development.
- Explained the front-end architecture and provided technical support to colleagues at the **Turkey Research Institute**.

China TravelSky Chongqing R&D Center Nov 2020 - Feb 2022

Software Engineer

DevOps Pipeline System:

Role: Front-end Development Engineer

System Scale: 10 modules, 20+ components, 50+ pages

System Highlights: Complete engineering practices, establishing a comprehensive front-end engineering system, including Webpack configuration, ESLint code quality checks, and CI/CD processes, enabling automated testing.

Personal Contributions:

- Refactored the pipeline build configuration module by streamlining business logic. Simplified 2500 lines of code by merging identical code, extracting common functions, and removing historical redundant logic, resulting in a more rational module architecture and improved readability.
- Collaborated with back-end engineers to optimize business processes, reducing the number of unnecessary initialization requests. Reduced initial load time by 1 second, a 50% improvement, enhancing the user experience.

Skill Stack

- **Programming Languages:** TS/JS, Python, familiar with Rust, C++, Go, Java
- **Frontend Frameworks:** React, Vue2/Vue3, familiar with Angular, Svelte, Lit
- **Backend Capabilities:** Next.js, familiar with Serverless, SQLite, MongoDB, MySQL
- **Frontend Libraries:** Echarts, D3.js, Ant Design, Tailwind CSS, QianKun, Single-spa, i18n, emotion
- **Browsers:** HTML, CSS, Browser working principles/basic architecture
- **Build Tools:** Webpack, Vite
- **Testing Frameworks:** Jest, Playwright
- **DevOps/Deployment:** Familiar with Docker, Kubernetes
- **AI Capabilities:** Proficient in constructing prompts and interacting with LLMs such as ChatGPT, Deepseek, Kimi, and Claude; familiar with AI domains such as LLM/MLLM/SD/CV/NLP
- **Other Skills:** Good English proficiency