Merlin Jo

linkedin/merlin-jo github/resetmerlin youtube/resetmerlin

As a Frontend engineer, I am passionate about developing user-centric web services. Through real-world project experience, I have honed my problem-solving skills and the ability to apply the latest technologies effectively. I aim to grow continuously through learning and collaboration. Fluent in English, I can efficiently communicate technical concepts.

Work Experience

Frontend Developer Assistant(Contract) Toss Securities 1.8M MAU and 750K DAU

April 2024–December 2024(9 months)

Seoul Yeoksam, South Korea

Overseas Platform Team

When launching a financial product, the back office must be updated to give the operations team access to key data and tools for internal issue-handling

- Margin Trading Back-Office Development: Before the launch of the margin trading service (2024.10.31), implemented 63% of the core back-office features, enabling operations to support both equities and bond-related transactions.
- Dollar Transfer Back-Office Development: Collaborated with a server engineer from the domestic team to develop all required back-office features. Managed dynamic requirement changes in coordination with the server engineer and Product Manager to ensure full operational readiness before the Dollar Transfer Service launch on December 30, 2024.
- Multi-Modal Back-Office Optimization: Consolidated metadata into a single build file, drastically reducing HTTP requests from 100+ JS chunks and improving multi-screen modal performance.
- API Call Optimization in Back Office: Diagnosed and resolved an issue causing 1M+ excessive API calls in the balance screen, identifying root causes and contributing to a solution within 3 hours, significantly reducing server load and improving system reliability.

Option Silo Team

Feature development for option products within the Toss Securities app(web view)

- US Options Silo Development on MTS: Developed features such as a stock option price forecaster and an option position profit calculator for individual stock details.
- Webview Transition Analysis (MTS): Explored integrating StackFlow library for page transition router in the mobile trading service webview app, and identified compatibility challenges with Next.js. Consulted library maintainers and provided insights that clarified project direction despite the unfeasible feature.

Startup

Founder, Frontend Developer

Runtric

May 2025—Current

- Faced dynamic task assignment issues and built a Slack bot server integrated with GitHub Issues to automatically generate Slack-based issue tickets, improving task management efficiency.
- Implemented a core-feature logging system to analyze user interactions and identify which features were most
 engaging to users. Developed a client event logging system categorized by Feature, Navigation, and Fallback to
 prevent data overload.
- After the beta launch, analyzed logging data and discovered a high drop-off rate after sign-up (only ~10% of total visitors signed up). Extended an OAuth2 session flow on the client side, also enabling differentiated UI for both non-members and members. This increased user engagement, contributing to 3,300 visitors and 10,325 total page views within 3 weeks after the MVP launch.

- Established Local, Alpha, and Live environments for both client and server to create isolated testing conditions.
 Integrated an admin tool in the Alpha environment connected to the admin API, significantly reducing QA time and cost.
- Integrated environment-based build scripts to generate appropriate robots.txt files and prevent web crawling on non-live environments. Added image compression, filename hashing, and cache control during build time to optimize web performance.
- Used **Static Site Generation (SSG)** for content-heavy pages to pre-render tutorial content into HTML at build time, improving load performance for users distant from the server.
- Collected user feedback from Reddit and learned that the content felt too easy. In response, implemented a new **Custom Practice Card** feature to increase engagement and difficulty. Completed development within two weeks and included it in the MVP launch, where it became one of the most frequently used features by users.
- Successfully launched the MVP on **October 13**, attracting **3,500 visitors** and **10,300 page views** within three weeks. The product was featured on the German tech website <u>t3n</u>, resulting in **63% of visitors** coming from Germany.

Projects

Solo, Full Stack

ScriptMind

January 2024-December 2024

- Achieved Top 20 Daily Products on Product Hunt with 17,240 page views, 2,693 visitors, and 425 sign-ups.
- Boosted signup conversion by 17.65% through landing page optimization (Lighthouse $80 \rightarrow 97$). [Technical Blog]
- Built a Swagger UI system for dynamic API updates. [Technical Blog].

Etc

YouTube Tech Content Creation: Posted daily YouTube videos explaining technical concepts and lessons learned to address feedback received during my early months at Toss Securities. This consistent practice strengthened my communication and engineering skills, enabling me to contribute to 63% of the Margin Trading Service back-office development as part of a frontend team, and to complete the entire Dollar Transfer back-office Client Page as the sole Frontend Engineer.

Education and Certifications

B.Sc. in Computer Science, Dankook University

2021-Current

Technologies and Languages

- Languages: TypeScript, JavaScript, HTML, CSS
- Technologies: React, Next.js, TailwindCSS, React Query, AWS, Turborepo, SCSS