

Jiyoung Lee

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Experience

Software Engineer at IBM | Dec 2023 – Present

- **Led** end-to-end vault secrets integration for *DataStage* flows using **React**, enabling **secure credential** reuse across internal/external vaults.
- **Architected** a modern, performant UI for *Peek* stage using **React.memo** for optimization with table virtualization to handle **10,000+ columns**, reducing users' debugging setup time and eliminating manual entry errors.
- **Facilitated compliance** with FIPS 140-3 standards for *DataStage* to advance **AWS GovCloud** readiness for secure cloud deployment enabling government agencies to debug sensitive data.
- **Mentored 8+** engineers on best practices for UI development and security through detailed PR reviews and proactive knowledge sharing, improving team performance.
- Implemented intelligent folder logic leveraging **React** hooks and **Express.js** RESTful endpoints, **improving** user **efficiency** on key asset management tasks by **20%** through streamlined creation and duplication workflows.
- Developed advanced search functionality for *DataStage* assets, enabling multi-criteria search and filters that **reduced** asset discovery **time by 90%** and improved user productivity across large projects.
- Accelerated defect detection by writing automated tests in **Selenium/Java** and integrating **TypeScript** type guards for runtime validation, saving **10 engineer hours** per release and reducing post-release bugs.

Full Stack Developer at Hotswaps | Jun 2022 – Nov 2023

- **Optimized** user favorites fetch times by **30%** by implementing **SQL linking tables** and refactoring complex join queries within **Express API** endpoints to save and fetch favorited listings.
- Improved UX and page flow by adapting to different screen sizes and devices using **mobile-first** development in **ReactJS** and **Tailwind**, ensuring a consistent and user-friendly experience for the user settings page.
- Implemented rate limiting through UI feature controls and customized error handling to prevent excessive API calls, **reducing** server load by **10%** and **optimizing** AWS RDS usage costs.

Software Engineer at nVision (Open Source) | Mar 2023 – Aug 2023

- **Architected** an observability tool to help developers identify bottlenecks, reduce latency, and improve reliability of **Next.js** applications through a custom **OpenTelemetry** instrumentation that traces server-side network activity.
- **Enhanced** the maintainability of **Next.js** routing systems at scale by creating **data visualization models** (tree graphs) using **D3**.
- Enabled real-time monitoring of server-side network activity using **WebSockets** for bi-directional data communication.

Education

Management Information Systems, B.S | Rutgers University | GPA: 4.0

Skills

Languages

JavaScript, TypeScript, Java,
Python, R, SQL (PostgreSQL, MySQL),
NoSQL (MongoDB), JSON

Front-End

React, Next.js, SolidJS, HTML,
CSS (Tailwind CSS), Material-UI,
Carbon Design System

Backend/Tools

Node.js, Express, WebSockets,
Authentication (JWT, Passport.js),
Prisma, Sequelize, Selenium,
Webpack, Git, JIRA