Karan Raina

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Profile

Currently leading Theme Engine team at Fynd (Shopsense Retail Technologies Ltd.), where I developed React JS based theme engine powering dynamic storefront themes using React v18, Node.js, Express, and Webpack 5. Also developed a CLI in Node.js for theme management. Was recognized with multiple awards for excellence in this role.

Additionally, I am the creator and maintainer of some **open source NPM projects**, including **express-under-pressure**, **react-ssr-side-effects** and **nodejs-threads** among others. I have also contributed to notable NPM packages like **fastify**, **pino**, **autocannon** and **@fastify/under-pressure**. My open source contributions reflect my commitment to the developer community and continuous learning.

Skills

Node.js, Fastify, Express JS, React, Next JS, TypeScript, GraphQL, CSS, Vanilla JavaScript, Redux, PostgreSQL, SQLite, Mongo DB, Heroku, Cloudflare, AWS, Jest, Babel, Webpack, Vite,

Experience

Fynd (Shopsense Retail Ltd) [Reliance] – Ahmedabad, Software Development Engineer - 1   Oct 2022 – present

- Led the react team in architecting and developing a high-performance engine using Node.js, React 18, and Express to serve dynamic storefront themes, supporting up to **25K requests per second per pod.**
- **Increased throughput by 40%** for our theme engine by caching and handling Redis Head-of-Line blocking, enhancing overall system efficiency.
- Architected and maintained both **microservice and monolithic applications**, ensuring scalability and maintainability based on project requirements.
- **Implemented micro-frontends** to modularize the frontend codebase, enhancing development speed and team autonomy.
- Created **RESTful services** for seamless integration between frontend and backend systems, facilitating efficient communication and data exchange.
- Implemented comprehensive security measures to protect against vulnerabilities such as **XSS**, **CSRF**, and **SQL injection**, ensuring data integrity and user safety.
- Developed a robust **CLI tool in Node.js** for partners to manage their themes on the Fynd platform, enhancing developer productivity and operational efficiency.
- Employed advanced memory optimization techniques to minimize resource usage and prevent memory leaks, ensuring application stability under high load, resulting in a **20% reduction in memory usage.**
- Passionate about performance engineering, continuously **benchmarking and profiling**

applications to identify and address bottlenecks.

- Received multiple awards for outstanding performance and contributions.

Tata Consultancy Services Ltd. – Gandhinagar, System Engineer   Jul 2018 – Oct 2022

- Developed new features and enhancements for key manufacturing pipeline automation.
- Worked extensively with **ES6, Babel, Gulp**, and various JavaScript frameworks.
- Used GitHub Advanced Security to find and **fix security vulnerabilities**.
- Developed REST APIs and interacted with PostgreSQL databases.
- Implemented role-based access and JWT authentication.
- Improved CI/CD pipelines using GitHub Actions.
- Worked in an Agile environment, participating in backlog refinement and sprint planning.

Education

Birla Vishvakarma Mahavidyalaya Engineering College, Computer Engineering   Aug 2014 – Aug 2018

- AoI: Data Structures and Algorithms

Government Higher Secondary School, HSC   May 2012 – Apr 2014

- AoI: Mathematics and Physics

Awards

Fynd Innovator of the Year Award, Recognition for my efforts to enhance performance and stability in the React Theme Engine.

Fynd Star Award, Awarded for taking complete ownership React Theme Engine.

Awards for Excellence, A total of 6 awards in the category of "Awards for Excellence" at Tata Consultancy Services.