Rajat Sharma

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EDUCATION

Northeastern University, Boston, Massachusetts, USA

Master of Science in Information Systems, GPA - 3.810

Sept 2022 - Dec 2024

Guru Gobind Singh Indraprastha University, Delhi, India

Bachelor of Technology in Electronics and Communication Engineering

May 2007 - Apr 2011

TECHNICAL SKILLS

Frontend Technologies

ES6+, TypeScript, HTML5, CSS3 React, Hooks, Next.JS, GraphQL, Redux, Redux Toolkit, Angular.js

UI/UX Development

Sass, Styled-Components, Emotion, Tailwind, CSS Module, Bootstrap, Material-UI, Figma, Storybook

Testing libraries & Frameworks

Jest, Enzyme, React Testing Library, Cypress, NightWatch.js

Frontend Performance

Code Splitting, Lazy Loading, Web Vitals Optimizations, Browser Dev Tools & Performance Profiling

Architecture Pattern

Micro-frontend, Design Systems, SPA, SSR, PWA, Microservices, Serverless

Backend Technologies

Node.js, Java, Spring Boot, Spring MVC, Spring JPA, Hibernate, Spring Security, OAuth2, JWT, MFA, SSO Cloud and DevOps

Pulumi, Packer, Kubernetes, Docker, AWS, Azure, GoCD, GitHub Actions, Jenkins, Prometheus, Grafana, Splunk, SonarQube

Databases

MySQL, Oracle, MongoDB, Redis, PostgreSQL

Web Servers and Build Tools

Apache Tomcat, Nginx, Express.js, Webpack, Babel, Parcel, Storybook

PROFESSIONAL EXPERIENCE

New York Life Insurance, New York, USA, Software Engineer Co-op

Jan 2024 - Aug 2024

- Strategized and accelerated the **React 18 upgrade and release**, implementing advanced hooks and optimizing Redux store with Redux Toolkit, reducing rendering time by 30% and enhancing performance by 20%
- Architected and implemented **reusable** React components using **Styled-Components** for CSS-in-JS, reducing 40% code duplication
- Composed RESTful endpoints using **Java Spring Boot** and refactored REST APIs into custom composite APIs for efficient batch CRUD operations, improving performance by 30% and reducing duplicate network calls and code
- Oversaw CI/CD and AWS services (Code Pipeline, EC2, S3, Amazon RDS), monthly releases and urgent bug fixes

McKinsey & Company, India and Boston, New York, USA, Senior Lead Engineer

Oct 2016 - Aug 2022

- Collaborated with Firm Design team to create **Design System React**, **TypeScript**, and **Storybook**, and **Bootstrap** theme, standardized **UX** across 20+ teams, halved development time and costs for accessible web applications, and saved over \$200k
- Pioneered **Micro-frontend** using **Webpack Module Federation** for modular code sharing and seamless integration across technology-agnostic applications, obtaining a 25% faster feature deployment and a 30% deduction in development time
- Drove frontend excellence through **performance optimizations** (code splitting, lazy loading, Redux normalization) and robust testing (Jest, React Testing Library), resulting in 40% faster load times, 85% test coverage, and 60% fewer production bugs
- Drafted and spearheaded **RESTful Microservices** development with **Spring Boot** and **Node.js**, cutting module development and testing time and resources by 33%. Also implemented **feature flags**, lowering feature release risk by 40%
- Strengthened security with **Multifactor** authentication, sped up **JSON Web Token validation**, cut malicious requests by 50% through **rate limiting** and **RBAC**, and ensured 99.9% data protection with **SSL/TLS** and **AES encryption**
- Devised testing and build CI/CD processes for 10+ projects using **GoCD**, **GitHub Actions**, **Docker**, **Kubernetes** and **AWS**, implementing **infrastructure** as **code**, resulting in 75% faster deployments and accelerated release cycles
- Facilitated **cross-functional collaboration** and vendor management **across New York and Boston offices,** optimizing planning, architecture, delivering high-impact, customer-facing solutions with a 35% productivity boost and substantial cost savings

Nagarro, India, Senior Associate Technology

Jul 2014 – Sep 2016

- Constructed and managed comprehensive reusable component libraries in **Angular** and **React**, diminishing development efforts by 25%, while obtaining a 20% decrease in load times through code refactoring
- Consulted closely with client designers to brainstorm and implement UX enhancements, achieving a 30% less in the number of clicks required for user actions
- Launched application **CI/CD** workflows with **Jenkins** tool, easing release cycle times by 50%. Further subduing post-release issues by 40% through stringent **linting** and **testing** procedures

Infosys Limited, India, Senior System Engineer

Dec 2011 - Jul 2014

- Designed and developed creative, reusable Microsoft Silverlight widgets and controls to improve user experience, enhancing web
 control interaction time and responsiveness by 30%
- Engineered and optimized data access logic for databases and external services, while refactoring frontend and backend code, resulting in 40% improved data retrieval latency and enhanced system performance

GuideMe (React, Redux, Styled-Components, Spring Boot, PostgreSQL)

Jan 2024 - Aug 2024

- Strategically upgraded existing components and dependent libraries to **React 18**, integrating advanced features to enhance functionality, performance and user experience
- Optimized frontend with reusable Styled-Components, efficient Redux state management, and performance techniques like code splitting and lazy loading, achieving 25% faster development, 30% fewer re-renders, and 40% quicker initial loads
- Programmed **RESTful** endpoints and **RBAC** using **Spring Boot, Spring Security,** and **Spring MVC**, reducing development and testing time and resources by a third, while integrating with Sales Central, NYL systems, and third-party APIs
- Administered monthly releases and streamlined CI/CD pipelines utilizing AWS services such as Code Pipeline, EC2, S3, and Amazon RDS, ensuring smooth and efficient deployments
- Revamped codebase to enhance **security** and **performance**, eliminating redundancy and complexity, and introduced Custom Batch APIs, significantly reducing network calls and duplicate code

Alumni Center (React, Redux, TypeScript, Micro Frontends, Spring Boot, Oracle, MySQL, Azure, AWS) 🖂 Jun 2020 – Aug 2022

- Headed a team of 12 software engineers in architecting, executing, and delivering cloud-native applications, utilized Micro
 Frontends for React, Angular, and JavaScript applications and Microservices for Spring Boot, Ruby on Rails, and Node services
- Implemented React lazy loading, code splitting with React.lazy and Suspense, memoization using React.memo, and custom hooks for optimized data fetching, significantly reducing initial loading time and bundle size by one-third
- Constructed **RESTful** endpoint using **Spring Boot** with **Spring Security, Spring JPA,** and **Hibernate ORM,** optimizing data queries and caching, which reduced response times by 40% and improved system reliability
- Strengthened security with Multi-Factor Authentication, Single Sign-On and OAuth2, optimized JSON Web Token validation, cut malicious requests by 50% through rate limiting and RBAC, and ensured 99.9% data protection with SSL/TLS and AES encryption
- Streamlined build and deployment processes through DevOps contributions, leveraging GoCD, GitHub Actions, Azure Web Services, AWS Lambda, CloudFront, S3 Bucket, Docker, and Kubernetes for automated workflows
- Executed comprehensive monitoring, analytics, and alerting, utilizing Prometheus, Grafana, Splunk, and SonarQube. This
 bolstered application availability and reliability, leading to a 30% decrease in incident response

McKElections (React, Redux, Node, NightWatch, Docker, Kubernetes, MySQL)

Mar 2017 - May 2020

- Presented MVP, secured project approval, and assisted a 10-member vendor team for end-to-end project development and delivery by utilizing the agile principle
- Pioneered a reusable **Pattern Library using React, Redux and TypeScript** and **Microservices architecture**, reducing development and testing time and resources by one-third for autonomous module development
- Enforced comprehensive security measures, including MultiFactor & JSON Web Token authentication, role-based access control (RBAC) for access restriction, and encryption for both data in transit (SSL/TLS) and data at rest (AES)
- Generate **CI/CD** pipeline using **GoCD**, **Docker**, and **Kubernetes**, enabling seamless deployment and scaling of applications while ensuring efficient and reliable software delivery

McKinsey Design Systems (React, Bootstrap, Emotion, StoryBook, CDN, NPM, JFrog)

May 2019 - Oct 2019

- Coordinated with the Firm Design team to deliver the Firm **Design System**, a **React** library in **TypeScript**, and a **Bootstrap** theme, standardizing the **user experience** and improving **web accessibility** across 20+ web application
- Established a **CI/CD** pipeline with **JFrog NPM service** for the secure and versioned release of the Design System library, encompassing the seamless **distribution** of **npm packages**, dependencies, and associated artifacts

CERTIFICATES

AWS Certified Solutions Architect - Associate

Microsoft Certified: Azure Fundamentals ☑