Ratna Singh

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WORK EXPERIENCE

R&D Development Engineer   06/2023 – present
Dassault Systemes Solutions Lab   Bangalore, India

- Delivered critical frontend features for the Materials Registration Team, enhancing functionality and UX for over 5,000 internal users.
- Developed a reusable step wizard, reducing duplicate code by 60% and decreasing user-reported errors by 20% across 4+ registration modules.
- Built config-driven form components, cutting engineering effort on updates by 70% and enabling rapid onboarding of 15+ new material types.
- Implemented bulk file registration for 1,000+ substances per upload, reducing average registration time by 50% from 3 days to 1.5 days.
- Optimized UI responsiveness, improving performance across devices and increasing user satisfaction ratings by 25%.
- Ensured high code quality with 90% unit test coverage using Jasmine and Karma, enhancing reliability and maintainability of the codebase.
- Collaborated with UX designers and backend engineers to streamline workflows, reducing integration issues by 50% and accelerating feature delivery by ~30%.

Systems Engineer   06/2021 – 06/2023
Tata Consultancy Services   Bangalore, India

- Designed and developed UI components in Angular and React for three major web apps, increasing feature delivery speed by 25% and enhancing UX for over 10,000 monthly users.
- Added route-based and module-level lazy loading, achieving a 40% reduction in initial load time and an 18% decrease in bounce rates on key pages.
- Created reusable UI components and centralized state management using Redux and Context API, halving duplicated code and cutting bug fix time by 30%.
- Integrated interactive dashboards with Chart.js and D3.js, enabling real-time visualization of business KPIs and reducing time-to-insight for stakeholders by 60%.
- Implemented scalable REST APIs in Python (Flask), achieving 95% unit test coverage and decreasing backend bugs in production by 40%.
- Optimized MSSQL tables, views, and stored procedures, enhancing data query performance by up to 60% and minimizing database timeouts during peak traffic.

SKILLS

- JavaScript , TypeScript, React JS, Redux Toolkit, Angular, HTML5, CSS3, RxJS

ACHIEVEMENTS

Awarded with the 'One The Spot' award by TCS in appreciation of the outstanding contribution to the organisation.

EDUCATION

Btech in Electronics and Communication   07/2017 – 06/2021
Vellore Institute Of Technology   Vellore,Tamil Nadu
CGPA : 8.79