

# Tanvi Agrawal

Software Engineer/Software Developer

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Portfolio

Senior Frontend Engineer with 5 years of experience designing and delivering scalable, high-performance web applications. Specializes in React.js, micro-frontend architectures, and design systems to enable modular, maintainable, and performant products. Adept at driving end-to-end feature delivery — from architecture and API integration to UX polish — with measurable business impact. Skilled at optimizing complex UIs, leading cross-functional initiatives, and mentoring engineers to elevate team velocity and code quality.

## Work Experience

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**SWE 2** • Demandbase Pvt Ltd • San Francisco, United States (Remote)

Apr '23 – Present

- Architected and led migration to micro-frontend architecture, enabling independent deployments and reducing inter-team release bottlenecks by 40%.
- Built and led development of a greenfield system with 3 direct reports, driving cross-functional collaboration across design and PM to ensure on-time, high-quality delivery with measurable business impact.
- Modernized legacy codebase by upgrading outdated libraries, refactoring critical modules, and stabilizing CI/CD pipelines—boosting maintainability and build reliability by 35%.
- Developed high-performance dashboards with 7-8 dynamic filters using React + RTK Query, reducing API payloads and network load by 30% through memoization and caching strategies.
- Integrated fine-grained role-based rendering with internal tooling to simulate user roles, improving test coverage and frontend security.
- Implemented FullStory with custom event tagging for frontend observability, drastically improving production-level debugging and user behavior analysis.
- Migrated fragile legacy test suites to Playwright, significantly reducing test flakiness and increasing CI reliability.
- Mentored two frontend interns, improving onboarding with internal documentation and code pairing—enhancing team velocity and code quality.

**Software Engineer** • BYJU'S • Bangalore, India (Remote)

Jan '22 – Apr '23

- Re-architected synchronous report generation to a serverless AWS Lambda + S3 pipeline reduced latency by 40% and enabled scalable on-demand access.
- Built a backend-driven dynamic form engine to support fast rollout of assessments without code changes.
- Contributed to internal design system and UI library; standardized components across teams and reduced release friction.
- Optimized rendering for large datasets using React memoization and lazy loading; improved UX on low-end devices by 15-20%

**Full Stack Engineer** • Mapsted • Canada, Canada (Remote)

Jun '21 – Jan '22

- Developed indoor heatmap visualizations with React and GraphQL; enabled real-time behavioral analytics for spatial layouts.
- Built reusable formatting and validation utilities; reduced input-related bugs and inconsistencies by 20%.

## Education

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**Maharishi Dayanand University (MDU)**, Rohtak, India | Bachelors of Technology (B.Tech)

Jan '17 – Mar '21

Computer Science

GPA: 78%

## Certifications

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**CCDSA** | Codechef

Dec '21

## Skills

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**Frontend Engineering:** React.js, Next.js, Redux, Tailwind CSS, SSR, Performance Tuning, SEO Optimization

**Architecture & Systems:** Micro-frontends, scalable component libraries, CI/CD optimization, role-based rendering

**Backend & APIs:** Node.js, Express.js, REST APIs, Cube

**Database & Cloud:** MongoDB, MySQL, Firebase, AWS (EC2, S3, Lambda)

**Collaboration & Delivery:** Jira, Agile, Webpack, Vite, Github/Gitlab Workflows, Github Copilot

**AI tools:** Github Copilot, Claude, ChatGPT