# AJAY JAYAPALAN

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## Frontend Heavy Full Stack Engineer

Full Stack Engineer with 4+ years of experience building scalable, high-performance web and mobile applications. Skilled in React.js, Next.js, TypeScript, Node.js, Express.js, and SQL/NoSQL databases. Experienced in creating reusable components, optimizing performance, and delivering user-centric digital products across healthcare, IoT, and SaaS domains. Immediately available for remote roles.

## WORK EXPERIENCE

### Toobler Technologies                                          07/2022 – 08/2025
**Software Engineer**

- Built reusable React.js, Next.js, and TypeScript component libraries that improved development speed and ensured consistent UI across enterprise projects.
- Developed interactive IFC, SVG, and 3D model viewers using React and Three.js to support digital twin visualization with accessibility compliance.
- Optimized frontend performance with lazy loading, memoization, and tree shaking—achieving faster rendering and better Core Web Vitals.
- Created documented UI packages using Rollup and Storybook to simplify adoption and reduce duplicate codebases.
- Implemented unit and integration tests with Jest and React Testing Library to strengthen component reliability within Agile sprints.
- Supported backend pipelines by integrating Node.js, Express.js, and Python scripts for automating 3D model processing, accelerating delivery cycles.
- Developed backend services with Node.js and Express.js to manage 3D asset conversion, file uploads, and API integrations for digital twin systems.

### Mykare Health Technologies                                   09/2021 – 07/2022
**Junior Software Engineer**

- Architected a scalable JSON-driven frontend framework enabling faster creation of new pages and routes without rebuilds.
- Delivered a responsive multi-city healthcare booking platform in React and Next.js within one week, optimized for SEO and performance.
- Developed React Native apps for healthcare booking and practice management with shared reusable UI components.
- Built a real-time doctor-patient consultation app using WebRTC with secure communication and prescription handling.
- Collaborated on REST API integration with Express.js and MongoDB to ensure secure and seamless backend communication.
- Created reusable component libraries to maintain scalability and design consistency across multiple applications.
- Implemented backend features in Node.js for handling booking workflows and user authentication modules.

## PROJECTS

### Side projects                                                03/2020 - Present

- OLX-style classifieds app built with Next.js and TanStack Query featuring ad posting, image uploads, category filters, optimistic updates, infinite scrolling, and SEO-friendly SSR/SSG.

- TikTok-style short video app built with React Native featuring scroll-based reels and interactive UI for higher engagement.
- Personal finance tracker built with React Native using persistent local storage for seamless daily expense tracking.
- Puppeteer.js automation suite for handling repetitive web tasks including login flows and scraping, improving productivity by 70%.
- Full-stack event management system (Node.js, Express.js, MongoDB) with registration, scheduling, and communication modules.
- Implemented microfrontend architecture using Single-SPA for modularized enterprise React applications at Toobler Technologies.
- Developed Python Django + Pandas-based merge-and-purge data tool for business analysts to remove duplicates and derive insights.

## SKILLS

**Frontend Technologies:** React.js, React Native, Next.js, TypeScript, JavaScript (ES6+), HTML5, CSS3, SCSS, Micro Frontend, MUI, Styled Components, Tailwind CSS, Three.js, SSR, SSG

**API & Backend Integration:** Node.js, REST APIs, GraphQL, Express.js, Nest.js, MongoDB, Mongoose, Python, SQL, Sequelize

**State Management:** Redux, Redux Toolkit, Context API, Rematch, Zustand

**Performance Optimization:** Lazy Loading, Memoization, Code Splitting, Tree Shaking

**Build & Tooling:** Docker, Webpack, Vite, Rollup, Babel, NPM, Yarn

**Testing & Quality:** Jest, React Testing Library, Unit & Integration Testing

**CI/CD & Version Control:** Git, GitHub, GitLab (basic), GitHub Actions (familiar)

**UX & Design:** Figma to Code, Responsive Design, Accessibility (WCAG), Framer Motion, React Spring

**Collaboration & Methodologies:** Agile, Scrum, Jira, Slack, Code Reviews

**Cloud Awareness:** AWS/GCP (familiar)

## CERTIFICATIONS

**React.js Expert**
Shape AI

**Web Development Bootcamp (MERN)**
Udemy

**Responsive Web Design**
FreeCodeCamp

**UI/UX Expert**
Avodha

## EDUCATION

**Bachelor in Computer Science**
Mahatma Gandhi University

2018 – 2021

## AWARDS & SCHOLARSHIPS

**Budding Star Award**
Toobler Technologies

2023

**University Rank Holder**
Mahatma Gandhi University

2021