# Raj Kumar Mahto

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## PROFESSIONAL SUMMARY

Frontend Engineer with **3 years of experience** building high-performance interfaces for **AI-driven and data-intensive applications**. Specialized in **streaming/real-time UIs, performance optimization, and scalable frontend architecture**, with a proven track record of owning products **end-to-end, from 0→1 to production** while improving reliability, user experience, and engineering velocity.

## EXPERIENCE

**Hypergro.ai** Oct. 2023 – Present
*Software Development Engineer (SDE-2)* Bengaluru, India

- Architected a **real-time AI ad-generation pipeline** over streamed backend responses using a custom incremental JSON parser (brace-depth + string-aware state machine), rendering partial payloads mid-stream to hydrate **10+ live UI components** and reducing ad-creation time by **70%**.
- Built a **browser-based non-linear video editor** on Remotion with a frame-accurate multi-track timeline (custom pixels↔frames scaling, draggable playhead, clip trim/drag), domain-split Zustand state (5 stores) with snapshot-based undo/redo and autosave, live preview, and cloud export via Remotion Lambda with real-time progress polling.
- Led frontend development as the **sole frontend engineer** for a **0→1 multi-tenant SaaS** platform, building dashboards, analytics, and a request-scoped data layer enforcing brand-level tenant isolation while integrating backend services and third-party APIs with **zero frontend-driven payment failures**.
- Owned the **end-to-end subscription checkout experience**, implementing plan selection, coupons, billing, and post-payment verification using Remix fetchers across multiple payment gateways (Razorpay, Cashfree) with idempotent retries and graceful failure recovery.
- Extended an **open-source visual editor** into a JSON-driven email platform with MJML→HTML rendering, multi-format export (HTML/PDF/JPEG), and navigation safeguards (route blockers + `beforeunload`) that eliminated data loss.
- Engineered **serverless rendering pipelines** (HTML → PPTX/PDF/image) on headless-browser infrastructure, supporting dynamic multi-slide composition and high-volume concurrent exports while improving scalability and rendering performance.

**Zimyo HR Software** Mar. 2023 – Jun. 2023
*Web Developer (Intern)* India

- Engineered **configurable, rule-based UI components** using React and TypeScript with dynamic form generation and state-driven rendering, supporting **500+ client organizations** with zero per-client customization overhead.
- Improved frontend stability through **strong input validation, error boundaries, and defensive coding practices**, reducing QA regression tickets by **25%** across data-heavy workflows.
- Integrated **RESTful APIs with async state management** for multi-step forms, validating end-to-end data flows and contributing to the successful delivery of **3 major releases** within sprint timelines.

## TECHNICAL SKILLS

**Languages & Frontend**: TypeScript, JavaScript, React, Next.js, Remix, HTML, CSS, Tailwind CSS, ShadCN/UI, Radix UI
**State & Backend**: Redux Toolkit, Zustand, Axios, REST APIs, SSE/Streaming, Node.js, Express.js, MongoDB, Firebase
**Cloud & Tools**: Docker, AWS (Lambda, S3), CI/CD, Git, GitHub, Vite, Webpack, Postman, Figma
**Core**: Remotion, MJML, SSR, Code Splitting, Data Structures & Algorithms, Performance Tuning, Accessibility

## EDUCATION

**Masai School** 2022 – 2023
*Full Stack Web Development*

**Neelashaila Mahavidyalaya** 2018 – 2021
*Bachelor of Commerce*