

Shiva Raj

📍 Lucknow, India ✉ abshivaraj555@gmail.com ☎ +91-9648042057 in shiva-raj 🌐 ShivaRaj5 📁 Portfolio

Software Engineer with **2+** years of experience building scalable, mission-critical web platforms using React, Next, TypeScript, and modern frontend technologies. Strong focus on high-performance UI/UX, scalable component architecture, and real-time data systems across EdTech and IoT platforms. Experienced with Agile development, version control, REST APIs, and modern state management tools. Built and deployed large-scale systems serving **900,000+** users across **45,000+** centers, reducing manual exam creation and evaluation efforts by up to **80%**, cutting administrative workload by **60%**, improving water treatment efficiency by **60%**, and enhancing operational reliability and compliance by **40%**.

Technical Skills

- **Programming Languages:** C++, JavaScript, TypeScript
- **Frameworks/Libraries:** Next JS, React JS, Electron JS, Node JS, Express JS, MongoDB, Supabase, Bootstrap, Rest API, Git, ChatGPT, Cursor, HTML, CSS, Data Structures, Problem Solving, Shadcn, Tailwind CSS, jquery, MathQuill, Katex, Redis, HashiCorp, React Leaflet, Redux, Tanstack, Zustand, Material UI
- **Testing Libraries:** RTL, JEST
- **CI/CD Pipeline:** Docker, Kubernetes

Professional Experience

Senior Software Engineer, *Schoolnet India*

Dec 2025 – Present

- Architected and deployed a scalable mission-critical, state-wide **LMS portal** from scratch using **React, TypeScript, Tailwind CSS, Zustand** and **React Query**, serving **45,000+** centers, **38 districts**, and **900,000+** students with **real-time exam and evaluation capabilities**.
- Engineered **exam creation** and **maker-checker** evaluation **CMS portal**, eliminating **80%** of **manual exam creation** and **accelerating assessment** and **certification processes** across all centers.
- Spearheaded end-to-end frontend operations, including **deployment, scaling, and troubleshooting** across **45,000+** centers, ensuring **100%** uptime and seamless platform performance while resolving critical **client** and **server** side issues that affected **high-volume installations**, improving **reliability** and **reducing** support escalations.

Founding Software Engineer, *Vidyayatan Technologies LLP*

Sept 2024 – Sept 2025

- Designed a production-grade **Learning Operating System (LMS + CRM + ERP)** from scratch using **React, TypeScript, Tailwind CSS, Zustand** and **React Query**, enabling **50+** institutes, **100+** instructors, and **2000+** learners to manage **teaching, assessments, payments, and operations** from a single platform.
- Build **AI-driven assessment and academic workflows** (auto-grading, question generation, performance insights), reducing manual evaluation effort by **80%** and cutting result publishing time from days to minutes.
- Automated **student onboarding, lead conversion, attendance, assessments, certifications, and payment reminders**, reducing administrative workload for institutes by **60%**.

Software Engineer, *Digital Paani*

Nov 2023 – Sept 2024

- Created and deployed a production-grade **Floc Detector Sensor** solution integrated with an **IoT water management platform**, supporting **30+** STP/ETP installations across multiple cities, **improving treatment consistency and compliance** by **40%**.
- Designed and monitored **real-time IoT data ingestion** workflows handling **millions of sensor events per month**, achieving **sub-second latency** and **improving system responsiveness** for critical water asset monitoring.
- **Reduced water treatment inefficiencies** by **60%** by translating live **floc-quality sensor** data into actionable **operational insights**, directly **impacting freshwater reuse and water-neutrality goals**.

Projects

JSON Tree Visualizer | React, TypeScript, React Flow, Tailwind | Live Demo | GitHub

- Built an interactive **JSON Tree Visualizer** using **React, TypeScript, and React Flow** that converts **raw JSON** into a **hierarchical node graph** for exploring **complex nested data**.
- Implemented **JSONPath-based search** with **dynamic node highlighting** and **auto-centering** along with **zoom/pan controls** and **hover metadata**, significantly **improving navigation and debugging** of large **JSON datasets**.

Achievements

- Global Rank **81 / 21K+** in October Long Challenge' 21 at CodeShef.
- Global Rank **109 / 5.5K+** in Starters 26 at CodeShef.
- Global Rank **180** in TCS Codevita Season 10 Round 1.
- Secured Rank **438** in GFG Mega Job – A – Thon 2023.
- Institute rank **2nd** at GFG among **1000+** candidates.
- Solved over **2000+** problems across all platforms.

Education

Bundelkhand Institute of Engineering and Technology, Jhansi, UP

July 2019 – Jul 2023

B.Tech in Computer Science and Engineering CGPA - 7.78/10