

# Prince Paulose

## STAFF FRONTEND ENGINEER

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### PROFESSIONAL SUMMARY

Staff-level Frontend Architect specializing in high-scale web platforms and AI-driven user experiences. Expert in driving technical strategy across the frontend stack, from modular micro-frontend ecosystems to specialized BFF layers and Generative AI integrations. Proven track record of leading cross-functional engineering teams at global organizations like IBM, with a focus on performance, scalability, and modern AI workflows.

### CORE COMPETENCIES

#### FRONTEND ENGINEERING

React Next.js TypeScript Micro-frontends  
Module Federation Design Systems  
Core Web Vitals Accessibility

#### AI & INNOVATION

Generative AI LLM Integration AI Agents  
Prompt Engineering Vector Search

#### ARCHITECTURE & TOOLING

System Design BFF Pattern GraphQL  
Vite / Webpack / Rollup CI/CD Automation IaC

#### FULL STACK & EXCELLENCE

Node.js / Spring Boot SQL / NoSQL Databases  
Testing (Jest/RTL/Puppeteer) Docker / AWS

### PROFESSIONAL EXPERIENCE

#### IBM India Software Labs

May 2024 – Present

##### Senior Software Developer

Kochi, India

- Architected a high-performance Backend-for-Frontend (BFF) layer using Node.js and GraphQL, optimizing data orchestration for React-based data product management.
- Built and integrated an AI-powered conversational agent using LLMs and AI agents, achieving substantial improvements in response accuracy and workflow efficiency.
- Established enterprise-grade React architecture with TypeScript, defining foundational patterns and shared libraries used across the global engineering ecosystem.
- Standardized frontend testing strategies (Unit, Integration, E2E) with Jest and Puppeteer, reducing production defects by 60% and enabling automated visual regression.

#### Capgemini

Mar 2023 – April 2024

##### Lead Software Engineer

Bengaluru, India

- Technical Lead for an enterprise Incident Management Platform, overseeing a team of 5 and owning the micro-frontend roadmap using React and Module Federation.
- Architected a scalable frontend ecosystem that enabled independent shipment of critical reporting features to global production.
- Developed data visualization dashboards with Power BI integration, bridging analytical datasets with interactive frontend components.

## Toobler Technologies

Feb 2019 – Feb 2023

### Senior Software Engineer

Kerala, India

- Architected a low-latency Interactive Event Management Platform utilizing WebRTC and Socket.io, supporting 10k+ concurrent users with real-time video/messaging.
- Built a modular Course Creation engine with a drag-and-drop React architecture, enabling rich content authoring for a global education platform.
- Designed real-time IoT Analytics Dashboards processing 5k+ events/sec, focusing on high-performance React visualization and data streaming.
- Led development of an offline-first React Native mobile app, implementing custom synchronization logic for mission-critical field data.
- Implemented scalable cloud infrastructure on AWS to handle multi-region traffic spikes while maintaining performance budgets for frontend consumers.
- Mentored engineering teams and established standardized full-stack best practices, focusing on frontend-first architectural thinking.

## IPSR solutions Ltd, Kochi (Internship)

Aug 2018 – Jan 2024

### Python Developer Intern (Django)

Kochi, India

- Built backend architectures and full-stack features using Python and Django.

## 📁 KEY ENGINEERING PROJECTS

### Smart Expense Tracker Platform

Full Stack Ecosystem

[React](#), [Redux Toolkit](#), [Java](#), [Spring Boot](#), [Docker](#)

Enterprise financial ecosystem leveraging decoupled microservices and a high-performance React frontend. Features secure JWT auth, event-driven consistency, and Redux Toolkit state management with normalized caching.

### Stock Market Signals App

Real-time Analytics Dashboard

[Node.js](#), [React](#), [TypeScript](#), [Socket.io](#), [MongoDB](#)

Real-time trading signal dashboard for Nifty 50, featuring sub-second WebSocket updates and automated technical analysis. Includes a multi-criteria validation engine for risk/reward filtering and IST market hours enforcement.

## EDUCATION & HONORS

### University of Calicut

2014 – 2018

B.Tech – Computer Science and Engineering

### GEM (Going the Extra Mile) Award

2023

Awarded by Capgemini for exceptional architectural ownership and delivery excellence.

## PERSONAL INFO

**Languages:** English, Malayalam, Hindi

**DOB:** 9th October 1996