BUBAI SAHA

SENIOR FULL-STACK & GENERATIVE AI DEVELOPER

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PROFESSIONAL SUMMARY

Results-driven Senior Full-Stack Developer with 10+ years of experience designing, developing, and deploying scalable web applications and SaaS platforms. Expert in React.js, Next.js, Node.js, TypeScript, and Python (Django/FastAPI), with deep proficiency in system design, microservices architecture, and cloud-native development on AWS. Proven technical leadership in leading agile engineering teams of 5+ developers, mentoring junior engineers, driving performance optimization, and delivering high-availability, API-driven products serving 10,000+ concurrent users. Strong problem-solving skills across GraphQL, CI/CD, Docker, GitHub Actions, PostgreSQL, MongoDB, Redis, OAuth2/JWT authentication, test-driven development (Jest, Cypress), application performance monitoring (Sentry, PM2), and Generative AI integration (LLMs, OpenAI, LangChain, RAG Systems, Embeddings, Semantic Search, Vector Databases).

PROFESSIONAL EXPERIENCE

Senior Full-Stack Developer · *Matrix Media Solutions Private Limited* — December 2022 – Present

- Architected and delivered scalable full-stack applications using React.js, Next.js, Node.js, TypeScript, and Python (FastAPI), serving 10,000+ concurrent users across multi-service marketplace and enterprise platforms with 99.9% uptime.
- Designed real-time booking and order management systems with WebSocket, GraphQL, Redis caching, and AWS services (EC2, S3, SES), reducing API response time by 40% in high-availability production environments.
- Led a team of 5 engineers, conducting 100+ code reviews per quarter, establishing coding standards, and mentoring junior developers through pair programming and technical knowledge-sharing sessions.
- Implemented CI/CD pipelines using GitHub Actions and Docker, with PM2 process management and Sentry application performance monitoring & error tracking, reducing deployment time by 65% and ensuring zero-downtime releases through automated testing with Jest and Cypress.
- Led integration of 12+ third-party APIs (Razorpay, Firebase FCM, Exotel, WhatsApp Business API), reducing manual workflows by 60% and enabling real-time notifications for 5,000+ daily active users.
- Integrated Generative AI capabilities using LLMs (OpenAI, Gemini), LangChain orchestration, and RAG Systems with Vector Databases (pgvector) and Embeddings-based Semantic Search to build intelligent features like AI Service Recommendations and AI Customer Support Assistants, driving user engagement and automation.
- Partnered with product managers and UX designers using Agile/Scrum methodologies, JIRA, and Confluence to define technical roadmaps and deliver features across 3 concurrent product streams on schedule.

Senior Full-Stack Developer · *Remote Programmer Private Limited* — March 2019 – November 2022

- Delivered end-to-end full-stack solutions for international clients including online betting platforms, hotel booking systems, SaaS accounting modules, and emotional intelligence toolkits, serving 50,000+ end users across 4 countries.
- Built multi-tenant SaaS architectures with Node.js, Express, React.js, Python, Django, PostgreSQL, and Sequelize ORM, achieving 99.9% availability through load-balanced infrastructure on AWS, handling 5,000+ daily transactions.
- Implemented secure payment gateway integrations (Razorpay, PayPal, Peach) with OAuth2/JWT authentication and KYC/AML compliance workflows, processing $200K+ in monthly transactions for regulated platforms.
- Mentored 3 junior developers through code reviews and pair programming, improving team velocity by 25% and reducing production bugs by 30%.

Sr. PHP Developer · *Web Corridor* — August 2016 – February 2019

- Developed and maintained 8+ web applications using PHP (CodeIgniter, Phalcon), MySQL, jQuery, and Ajax, delivering e-commerce and prediction platforms with payment gateway integrations serving 15,000+ monthly active users.
- Built custom shopping cart systems, subscription workflows, and real-time data feeds using RESTful APIs and third-party service integrations, improving conversion rates by 25%.

Web Application Developer · *Arobit Technologies* — November 2015 – August 2016

- Developed 5+ dynamic web applications using PHP, JavaScript, jQuery, and MySQL, contributing to multiple client projects with focus on responsive design and database query optimization, improving page load times by 35%.

TECHNICAL SKILLS

Languages:	JavaScript (ES6+), TypeScript, Python, PHP, HTML5, CSS3	**Frontend:**	React.js, Next.js, Redux, Tailwind CSS, Bootstrap, jQuery, SSR/SSG
Backend:	Node.js, Express.js, NestJS, GraphQL, Django, FastAPI, Socket.io, CodeIgniter, Phalcon	**Generative AI:**	LLM Integration, Prompt Engineering, OpenAI API, Google Gemini, AI Agents, LangChain,RAG Systems, Embeddings, Semantic Search, Vector Databases (pgvector, ChromaDB)
Databases:	PostgreSQL, MongoDB, MySQL, Redis (Caching, Pub/Sub, Queues), Sequelize ORM, Prisma, Mongoose	**Architecture:**	Microservices, Event-Driven Architecture, System Design, Webhooks, Message Queues, Data Pipelines, Pub/Sub
Cloud & DevOps:	AWS (EC2, S3, SES, SNS, Lambda, CloudWatch), Docker, CI/CD (GitHub Actions), Nginx, Fly.io,	**Testing:**	Jest, Cypress, React Testing Library, TDD, Selenium, Swagger, Postman

RabbitMQ, Linux

Security: OAuth2, JWT, RBAC, Data Encryption, Secure API Design

Monitoring: PM2, Sentry, Application Performance Monitoring, Error Tracking

Tools: Git, GitHub, JIRA, Confluence, Slack, VS Code, Cursor, Figma

PROJECTS

Qkly — Hyperlocal Multi-Service Marketplace Platform *Live*

Node.js · React.js · TypeScript · Python · FastAPI · MongoDB · WebSocket · AWS (EC2, S3, SES) · Razorpay · Firebase FCM · Exotel · Generative AI · OpenAI · LangChain · RAG Systems · Vector Databases

Hyperlocal on-demand multi-service marketplace connecting customers with verified local service providers for Home Services, Beauty & Personal Care, Food & Restaurants, Travel, Property, and more. Includes real-time booking, secure payments, live order tracking, and separate portals for customers, providers, and administrators.

- Built multi-service marketplace with real-time booking, order management, and live tracking using WebSocket and RESTful APIs with Redis caching.
- Implemented secure payments and wallet system with Razorpay integration, supporting refunds, commission calculations, and automated payout processing.
- Integrated Generative AI features using LangChain orchestration and RAG pipelines with pgvector Embeddings and Semantic Search, including an AI Service Recommendation engine and an AI Customer Support Assistant to enhance user experience and operational efficiency.
- Designed scalable cloud infrastructure on AWS with containerized deployment ensuring high availability, performance, and scalability.

LottoStar — Online Betting Platform *Live*

Node.js · Express.js · React.js · TypeScript · PHP · Phalcon · Python · Django · PostgreSQL · jQuery · Ajax · AWS · Selenium

Online betting platform offering lotteries, sports betting, live casino tables, and slot games within a compliant South African regulatory environment. Supports real-time betting on lottery draws, sports events, and interactive casino games.

- Developed fixed-odds betting system for lottery and sports events with live/pre-match wager capabilities and real-time odds processing.
- Implemented KYC/AML compliance workflows and secure payment processing in South African Rand (ZAR) under licensed regulatory authority.
- Optimized mobile and web experience for seamless cross-device usage without native app dependency.

Wfrlee — Smart Hotel Booking Platform *Live*

Node.js · Express.js · React.js · Redux · TypeScript · MongoDB · REST API · AWS

Innovative hotel booking platform with flexible hourly room booking (3/6/12 hours) and a unique price bidding system that optimizes hotel occupancy and customer convenience.

- Engineered flexible hourly booking system with admin-defined time slots and dynamic pricing via user bidding mechanism.
- Built comprehensive admin dashboard for managing hotels, rooms, bookings, and user activity with secure role-based access control.
- Deployed scalable backend services on AWS with Node.js and MongoDB for high performance and reliability.

Fintura — SaaS Platform for Accounting Firms *Live*

Node.js · Express.js · TypeScript · PostgreSQL · Sequelize ORM · Peach Payment Gateway · DATANAMIX API · AWS

Cloud-based SaaS module empowering accounting firms with seamless client and company management, onboarding, compliance tracking, and multi-tenant architecture.

- Designed multi-tenant architecture with secure environment isolation, supporting multiple companies and users per accounting firm.
- Integrated DATANAMIX 3rd-party API for company and director verification, with built-in tax, VAT, and regulatory compliance tracking.
- Built load-balanced architecture on Node.js, Express, PostgreSQL, and Sequelize ORM for high availability and scalability.

The Empathy Set App — Emotional Intelligence Toolkit *Live*

Node.js · Express.js · React.js · Redux · TypeScript · MongoDB · REST API · AWS · Swagger

Web and mobile platform for deepening emotional intelligence and empathy skills through Nonviolent Communication principles, with tiered access levels (Starter, Enhancer, Maximizer) for a structured learning journey.

- Developed points-based access system with unlockable content through purchases, referrals, and milestone achievements.
- Built multi-platform experience (web, iOS, Android) with comprehensive emotional intelligence modules and guided real-time conflict resolution tools.

FootballTipster — Soccer Prediction & E-Commerce Platform *Live*

Core PHP · CodeIgniter · MySQL · jQuery · Ajax · Facebook API · Google API · PayPal · Help2Pay

Web-based platform automating soccer match predictions with a built-in shopping cart for purchasing prediction tips. Features live score feeds, subscription packages, and multi-tier service offerings.

- Built custom shopping cart and subscription system using CodeIgniter with PayPal and Help2Pay payment gateway integrations.
- Integrated real-time match statistics feed and automated prediction engine for multiple global leagues.

EDUCATION

B.Tech in Information Technology · Govt. College of Engg. & Ceramic Technology (WBUT) 2014

Higher Secondary · Madarat Popular Academy (WBCHSE) 2010

Secondary · Madarat Popular Academy (WBBSE) 2008