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Senior Fullstack / Product Engineer | 12+ Years Shipping End-to-End Web, Mobile & AI Products | Technical Lead

PROFESSIONAL SUMMARY

Senior fullstack engineer with 12+ years shipping products end-to-end—from database design to polished UIs. Deep expertise in React, Vue, Next.js, Node.js, and TypeScript, with hands-on experience integrating AI capabilities (LLM orchestration, AI agents, STT/TTS) into production systems. Currently building preview, testing, and copilot tooling for WhatsApp AI agents at charles. Thrives in small, high-ownership teams where engineers shape architecture, drive product decisions, and deliver measurable user impact.

KEY ACHIEVEMENTS

- **Made AI agents testable before launch:** shipped Flow Preview and automated flow testing at charles, letting brands try and test WhatsApp AI agents without touching real customers
- **Owned end-to-end RTC platform serving 11,000+ users** — backend, web, and mobile clients using AWS Chime SDK, from architecture through production
- **62% faster AI responses** (4s → 1.5s) — redesigned Shadowlight's conversation engine with composable LLM/STT/TTS architecture
- **87% smaller Docker footprint** (4GB → 500MB) — consolidated 7-8 applications into a pnpm + Turborepo monorepo with optimized Docker builds
- **Shipped AI-powered admin tooling** for Boomer Crisis Hotline—enabling non-technical staff to batch-generate 100+ cases while maintaining character consistency
- **Delivered for clients in the US, France, Colombia, and Germany**, from Fortune 500 companies (J&J, Southwest Airlines) to high-growth startups

PROFESSIONAL EXPERIENCE

Senior Product Engineer (Fullstack)

charles | Germany | March 2026 – Present

Stack: TypeScript, Vue 3, NestJS, MikroORM, PostgreSQL, Redis, BullMQ, Mastra, Vercel AI SDK, Vertex AI (Gemini), MCP, Vitest, Playwright

- **Flow Preview:** built a sandboxed simulator that lets brands chat with draft WhatsApp flows on the production engine, with outbound messages, HTTP calls, and CRM writes replaced by safe captures
- **Automated flow testing:** LLM-generated multi-turn test cases, an LLM-simulated customer, and dual scoring (deterministic outcome check plus LLM judge); picked the generation model after comparing 6 models on latency, cost, and output validity
- **Cowork AI copilot:** built MCP tools that let the copilot run tests, diagnose failures in plain language, and create knowledge bases from chat
- **Website knowledge base:** shipped a crawl and LLM Q&A extraction pipeline that turns a brand's website into answers for AI agents, introducing the backend's first background job worker
- **Engineering enablement:** authored onboarding and code-convention skills for AI coding agents, and fixed a CI audit that had silently reported success for weeks

Senior Software Engineer

Hero Journey Club | Germany | January 2024 – January 2026

Stack: TypeScript, Next.js/React, NestJS, Node.js, OpenAI API, ElevenLabs API, AWS Chime SDK, Expo, React Native, Metabase, Amplitude, SQL

- **4th engineer hire**, actively contributed to scaling the team to 8 engineers while serving 11,000+ users across mental health and educational platforms
- **Shaped system architecture** in a flat senior team, balancing scalability needs with rapid delivery
- **62% faster AI responses** (4s → 1.5s) — refactored AI conversation engine for Shadowlight, migrating from WebSockets to HTTP with composable LLM/STT/TTS architecture
- Owned mobile app development — replaced browser-based WebRTC with native implementation, significantly improving audio quality and noise reduction
- **Created BI dashboards** (Metabase, Amplitude) with complex SQL queries for org-wide data visibility
- Championed early adoption of AI tooling (Cursor), which became the team standard for accelerated development workflows

- Built Boomer Crisis Hotline admin tool with integrated LLM, enabling batch generation of 100+ cases while maintaining character relationship consistency
- Implemented Picture-in-Picture for seamless Minecraft desktop gameplay integration

Lead Fullstack Engineer → Senior Full Stack Engineer

Chintai | Germany | October 2021 – December 2023

Stack: React, TypeScript, Node.js, NestJS, PostgreSQL, Docker, GraphQL, pnpm, Turborepo, GitHub Actions, Jest

As Lead Engineer (January 2023 – December 2023)

- **87% smaller Docker footprint** (4GB → 500MB) — architected pnpm + Turborepo monorepo consolidating 7-8 applications with optimized Docker implementation
- Led end-to-end exchange platform delivery from requirements gathering through production deployment
- Managed team of 2 engineers, delivered 2 training workshops on advanced development practices

As Senior Engineer (October 2021 – December 2022)

- Re-architected frontend using clean architecture principles, drastically reducing build times with enforced test coverage
- Implemented the platform's KYC identity verification flow, required for a platform regulated by the MAS (Monetary Authority of Singapore)
- Mentored 2 junior developers on unit testing best practices; established testing infrastructure

Full Stack Web/Mobile Engineer

Mind Doc by Schön Klinik | Germany | February 2019 – June 2021

Stack: Vue, Node.js, TypeScript, Flutter, PostgreSQL

- Built therapist booking calendar system for e-mental health application serving thousands of users
- Led UI redesign initiative, improving user experience and accessibility
- Hired 2 senior frontend engineers through technical interviews and coding challenges

Software Engineer

Sangoma | Remote | January 2018 – January 2019

Stack: Node.js, React, Electron, WebRTC

- Implemented multiparty video conference system for ZULU unified communications platform, enabling real-time collaboration for enterprise customers

Earlier Experience

Globant (2017): Frontend Engineer on an analytics dashboard for J&J Pharmaceuticals and on Southwest Airlines ETOPS.

Innvento (2014–2016): Web/mobile solutions for Volkswagen France; published multiple iOS apps. **CTZEN.co**

(2013–2014): Built core web application using Ember.js.

TECHNICAL SKILLS

AI & Real-Time: LLM Integration (OpenAI SDK, Claude API, Vertex AI / Gemini), AI Agents (Mastra, MCP), LLM Evaluation, Speech-to-Text (OpenAI, ElevenLabs), Text-to-Speech (ElevenLabs, AWS Polly), WebRTC, Real-Time Communication

Frontend: React, Next.js, Vue, TypeScript, JavaScript, Figma

Backend: Node.js, NestJS, Express.js, GraphQL, REST APIs, PostgreSQL, MongoDB, Redis, BullMQ

Mobile: React Native, Expo, Flutter, iOS (Swift)

DevOps & Practices: Docker, AWS, GitHub Actions, CI/CD, Monorepo Architecture (pnpm, Turborepo), Jest, Vitest, Playwright, Clean Architecture, TDD

EDUCATION

Software and Informatics Engineer

Universidad Nacional De Colombia | 2011 – 2016

LANGUAGES

Spanish (Native) | English (Full Professional) | German (B1, telc certified)