

AUSTIN MAKASARE

Full-Stack Software Engineer

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PROFESSIONAL SUMMARY

Full-stack software engineer with 1.5+ years of experience as the sole developer responsible for the architecture, development, and deployment of two production web applications. Proven track record of designing real-time, event-driven systems supporting 10,000+ concurrent users, and building cost-optimized, auto-scaling cloud infrastructure on AWS using Terraform. Strong foundation across the TypeScript/Node.js ecosystem, asynchronous job processing, payment integrations, and CI/CD pipelines. Completing an MSc in Computer Science (2026), seeking backend / full-stack engineering roles where ownership and scalable system design are valued.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript (ES6+), SQL

Frontend: React.js, Next.js, Redux, Tailwind CSS

Backend: Node.js, Express.js, REST API design, WebSockets (Socket.IO)

Databases & ORM: PostgreSQL, Prisma ORM, Redis

Cloud & DevOps: AWS (EC2, ALB, Auto Scaling Groups, ElastiCache, CloudWatch, SNS), Terraform (IaC), Docker, GitHub Actions (CI/CD)

Real-Time & Async Processing: Socket.IO, Redis Pub/Sub, BullMQ (job queues), WebRTC

Payments & Integrations: Razorpay (payment gateway, webhooks, idempotent processing)

Concepts: System Design, Event-Driven Architecture, Microservices, SOLID Principles, Design Patterns, Data Structures & Algorithms

PROFESSIONAL EXPERIENCE

Software Engineer — YSM Infosolution, Nashik, India

January 2025 – Present

- Sole developer responsible for end-to-end ownership — architecture design, development, infrastructure, and deployment — of two production-grade web applications used by real clients.
- Online Examination Platform:** Designed and built a real-time exam platform supporting 10,000 concurrent users using Socket.IO with a Redis Pub/Sub adapter for horizontal scaling across multiple servers, with sticky-session load balancing via an AWS Application Load Balancer.
- Cost-Optimized Cloud Architecture:** Architected a dual-mode AWS infrastructure using Terraform — a low-cost single-instance 'idle mode' for day-to-day operations (~\$37/month) and an auto-scaling multi-instance 'live mode' that provisions a full load-balanced cluster within ~10 minutes ahead of live contests, cutting infrastructure costs significantly versus running auto-scaling continuously.
- Asynchronous Processing:** Implemented BullMQ-based job queues for certificate generation, automated candidate notifications, scheduled auto-submission of exams, and other background tasks, including retry and scheduled-lock handling.
- Live Proctoring:** Built live candidate monitoring features including facial detection and presence/voice checks using WebRTC to ensure exam integrity.
- Payments:** Integrated the Razorpay payment gateway for exam registration fees, including webhook handling for reliable, idempotent payment confirmation.
- Advanced Form Builder Platform:** Built a configurable multi-page form builder with optional payment collection, automatic contact deduplication (by email/phone) into unified user profiles, and an analytics dashboard for tracking responses, submissions, and payment status.
- CI/CD & Monitoring:** Set up CI/CD pipelines with GitHub Actions (build → push to ECR → deploy to EC2) and configured CloudWatch alarms with SNS alerts for proactive monitoring of infrastructure health.

KEY PROJECTS

Advanced Form Builder — Production, Sole Developer

Node.js, TypeScript, Express, React, PostgreSQL, Prisma, BullMQ, Razorpay — configurable multi-page forms with payment collection, contact deduplication, analytics dashboard, and automated certificate/message delivery via async queues.

EDUCATION

MSc in Computer Science — KK Wagh Education Society, SPPU

Expected June–July 2026

BSc in Computer Science — KK Wagh Education Society, SPPU — CGPA 8.0

2021-2024