FERNANDO CORRÊA GOMES

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OBJECTIVE

Founding engineer and CTO who takes products from prototype to scale — architecture, backend, infra, mobile, web, AI, payments, analytics, and growth. Built and operated the entire Fokvs engineering stack while scaling the product to 100k+ users and meaningful subscription revenue. Seeking Senior SWE, Tech Lead, or Founding Engineer roles with high ownership and product impact.

SKILLS

Backend: TypeScript/Node, NestJS, Fastify, Python, Postgres, Redis
Architecture: Distributed systems, modular services, event-driven design, caching, async pipelines
Infrastructure: AWS (ECS/Fargate, RDS, VPC, S3, CloudFront), Terraform, Docker, CI/CD
AI/ML: LLM integrations, OCR, embeddings, pgvector, Bedrock, evaluation
Payments: PIX orchestration, multi-gateway routing, attribution, entitlements, subscription systems
Leadership: Technical direction, mentoring, hiring, roadmap ownership, product alignment

EXPERIENCE

Founding Engineer & CTO   2023–Present
Fokvs (EdTech SaaS)

- Rebuilt the platform from a fragmented prototype into a unified NestJS + Postgres system, cutting infra cost 85% and enabling rapid product iteration.
- Owned backend, infra, mobile, web, AI, analytics, and growth — effectively a full-stack engineering org of one.
- Scaled product from 1k → 100k+ users; implemented reliability, observability, and performance foundations.
- Shipped AI features (Question Scan, Flashcards) used by 20k+ students; built OCR + LLM pipelines and moderation workflows; processed 30k+ scans.
- Designed and built the payments engine (PIX + gateways) with retries, idempotency, attribution, and entitlements.
- Built document-processing pipeline for 18k+ materials (Gemini OCR + OpenAI embeddings + pgvector); created Bedrock + S3 vector variant powering search, retrieval, and recommendations.
- Grew subscriptions 0 → 300+ and reduced churn 50% → 10% by instrumenting analytics, funnels, and experiments.
- Led AWS migration (ECS, RDS, Redis, CloudFront, VPC/Terraform) with zero downtime; improved reliability and reduced overhead.
- Built data lake (S3 + Glue + Athena) supporting attribution, funnels, A/B tests, and internal reporting.
- Hired and mentored engineering team; set direction for architecture, QA, CI/CD, and product–engineering processes.

Earlier Technical Experience (Selected)   2018–2021
UFRGS

- Parallel computing research using StarPU; optimized heterogeneous CPU/GPU scheduling and performance.
- Prototyped mobile MVPs in entrepreneurial fellowship; owned early architecture and product validation.

PROJECTS

- **Payments Orchestration Engine** — Multi-gateway checkout with PIX, retries, idempotency, attribution, entitlements, and admin dashboard.
- **AI Question Scan** — Mobile feature where students scan exercises and receive step-by-step LLM solutions; processed 30k+ scans.
- **Document Embeddings Pipeline** — OCR + embedding system (Gemini + OpenAI + pgvector; Bedrock variant) powering search and recommendations across 18k+ documents.
- **Growth Funnel Analytics** — Ads→Checkout attribution using Meta API; improved signal quality and reporting accuracy to achieve 6× ROAS.

EDUCATION

Bachelor of Computer Science, UFRGS   2024