André Brandão

Platform & Backend Engineer

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PROFILE

Platform and backend engineer who ships end-to-end, from AWS and Terraform at work to a declarative NixOS + Proxmox homelab at home. Currently ML Engineer Intern at A3Data, building observability for multi-agent AI systems on Amazon Bedrock AgentCore and maintaining the internal Backstage platform. Co-founded Crossgeo, shipping production systems for logistics and distribution on AWS. Finishing a B.Sc. in Computer Science at PUC-MG in 2026.

SKILLS

Languages	TypeScript, Python, Go, C, Java, Rust, Bash
Backend	REST / gRPC APIs, microservices, event-driven (SQS / EventBridge / DynamoDB Streams), ECS, Lambda, RDS, DynamoDB, S3, CloudFront
Infra	AWS, Cloudflare, Terraform, Pulumi/SST, Backstage, K8s (Talos/Rancher), Docker, Proxmox, GitHub Actions, Vault, IAM
Data	PostgreSQL, SQLite, Redis, SQL, NoSQL, Airflow, Spark
Observability	OpenTelemetry, Prometheus / Grafana, distributed tracing
AI & LLMs	Amazon (Bedrock/AgentCore), multi-agent systems, MCPs, Langchain
Tooling	Linux, Nix / NixOS, Git, SOPS, FluxCD

EXPERIENCE

ML Engineer Intern *A3Data — Belo Horizonte, Brazil* 03/2025 – Present

- Implemented the observability layer for Grupo Elfa's multi-agent quotation system on Amazon Bedrock AgentCore, the first AgentCore production deployment in Latin America. Added distributed tracing, business KPIs and dashboards via OpenTelemetry for a pipeline that processes 800k+ quotations per month. Featured in the AWS Brasil engineering blog: *Grupo Elfa — Amazon Bedrock AgentCore for multi-agent observability at scale*.
- Built the internal developer platform on Backstage (Spotify) with a template engine that covers WhatsApp agents, web LLM agents, ETL pipelines (Airflow + Spark) and ML Python projects. Every template ships with Terraform infra, deploy pipelines, monitoring and IAM wired to company conventions.
- Provisioned and deployed production agents and services across AWS ECS, Lambda, DynamoDB (incl. Streams) and RDS entirely via Terraform.
- *Stack:* Python, Terraform, Backstage, OpenTelemetry, Airflow, Spark, AWS.

Full Stack Developer, Co-founder *Crossgeo — Belo Horizonte, Brazil* 06/2024 – Present

- **Duarte Distribuidora:** management system in production at a beverage distributor, covering inventory, sales, customers and suppliers. Svelte, TypeScript, SQLite.
- **Rota 88 Delivery:** last-mile delivery platform in production. Ingests orders from iFood and SAIPOS through Lambda webhooks, runs the operator web app on ECS with WebSockets for live dispatch, and ships a React Native app for couriers covering accept/reject, proof of delivery and hand-off to Google Maps for navigation. Restaurants configure between several routing heuristics we built for auto-dispatch. Svelte, TypeScript, React Native, PostgreSQL on RDS, AWS (ECS + ALB, Lambda, CloudFront).

Full Stack Developer *Crossvirus (PUC-MG startup) — Belo Horizonte, Brazil* 03/2024 – 2025

Built an epidemiological monitoring platform (Dengue, COVID-19) used in Divinópolis and João Monlevade, and coordinated two PUC-MG interns. Astro, Svelte, PostgreSQL.

PROJECTS

Homelab — Nix / NixOS, Terraform, Proxmox, SOPS, Talos github.com/andre-brandao/nixos

Fully declarative infrastructure covering my workstations (NixOS with home-manager) and a Proxmox homelab that runs Gitea, HashiCorp Vault, Prometheus and Grafana, and an LLM gateway. Each host is its own NixOS module with a matching Terraform stack for Proxmox, and all secrets are encrypted with SOPS.

GPUi Shell — Rust, Wayland, D-Bus, IPC, Nix github.com/andre-brandao/gpui-shell

A GPU-accelerated Wayland desktop shell written in Rust on top of Zed's GPUI framework. It replaces waybar, rofi and swaync with a single app that handles the status bar, application launcher, control center and media controls, and works with both Hyprland and Niri.

CERTIFICATIONS

AWS Partner — Agentic AI Essentials • Generative AI (Technical) • Digital Sovereignty on AWS (Technical) • AWS Academy Graduate — Cloud Foundations.

EDUCATION

B.Sc. in Computer Science *PUC-MG, Belo Horizonte, Brazil* 2022 – 2026/1 (expected)

LANGUAGES

Portuguese	Native
English	Professional working proficiency