

Micael Targino

Lead Software Engineer

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Summary

Lead Software Engineer with 4+ years of professional experience in backend systems, data engineering and ad tech. At Metrike I lead development of the company's own ad server, covering the JavaScript tag, the Android and iOS SDKs, the serving API and the BigQuery event pipeline, and I also own the AI brand-safety classification pipeline. I base architecture decisions on measurements such as load tests, benchmarks and gold-set evaluations, and I ship the results to production. Before returning to Metrike I was a Software Engineer at SnapMagic (YC S15).

Professional Experience

Lead Software Engineer · Metrike

Apr 2026 – Present

Brazilian ad tech company running display and video campaigns for national advertisers, including state-owned companies and federal ministries.

Ad server

- Lead engineer on the in-house ad server replacing a third-party one: multi-tenant admin and reporting hub (PHP, Laravel), serving and ingestion APIs (Python, FastAPI), JavaScript ad tag and a Pub/Sub → BigQuery event pipeline. Serves display, HTML5 and video (VAST 2.0–4.2, VMAP, VPAID, SIMID, OMID, companion ads) with IAB TCF v2 consent enforcement.
- Built native Android (Kotlin) and iOS (Swift) ad SDKs with banners, interstitials, MRAID 3.0, fullscreen and outstream VAST video, viewability measurement and install/deep-link conversion attribution, published with public docs.
- Built layered invalid-traffic (IVT) filtering, render-integrity signals, GeoIP, and brand-safety and GARM-risk targeting applied at serve time.
- Cut the ad tag's time-to-creative by 41% on broadband and 26% on slow 4G by requesting the ad in parallel with the consent check; ad decisioning takes ~5 ms server-side and the bundle shrank from 48 KB to 17 KB.
- Built a k6 load-testing harness with zero-data-loss checks against BigQuery. Measured ~270 req/s per 1-vCPU instance (p95 25 ms) with linear horizontal scaling, and sized the fleet for the incumbent ad server's peak (18M+ impressions/day, 1.4k/s bursts) at ~\$264/month.
- Shipped scoped read-only access for external clients (enforced in the ORM and in BigQuery), scheduled reports, conversion tracking, device targeting, dynamic creative optimization, a BI API and a web analytics module, with Prometheus and Grafana monitoring.

Brand safety and ETL

- Benchmarked four models on an adjudicated gold set and migrated the AI layer of the URL brand-safety classifier. On the URLs that reach that layer, acceptable-label accuracy rose from 76% to 91% and per-URL latency dropped about 5x.
- Designed a brand-suitability (GARM) risk dimension. Evaluation-driven work on the criteria and prompts raised agreement with a two-judge consensus from about 50% to 74%, and to 78% when page content is included.
- Found and fixed a silent failure (missing Brotli decoding) that left 30.6% of scraped pages empty before AI categorization.

Campaign platform (web-metrike)

- Migrated the verification and location dashboard queries from MySQL to BigQuery, cutting worst-case dashboard load time from ~30 s to ~5 s.
- Built an AI agent (Claude with tool use) that converts media plans in different spreadsheet layouts into Metrike's standard ad delivery plan (ADP), with async processing and a review step before import.
- Automated campaign setup on the external ad server from an ADP (advertisers, zones, campaigns, creatives, display and VAST) using an idempotent, resumable plan/execute design. Setup time went from about 3 hours of manual work to about 10 minutes.

FaturaDoc by Metrike (fiscal-validator)

- Took over an inherited AI product that validates suppliers' tax and labor compliance documents before campaign payments, and brought it to production. Fixed data correctness, added OCR for scanned PDFs, government certificate lookups and LLM-generated risk reports (FastAPI, Celery, PostgreSQL, React, Gemini on Vertex AI).
- Hardened and operate it: rotated secrets, key-only SSH and a firewall, Prometheus alerts, backups with restore checks and per-campaign cost tracking. Removed about 10k lines of dead code and integrated it with web-metrike.

Software Engineer II · SnapMagic (YC S15)

Aug 2025 – Apr 2026

Silicon Valley startup building an AI copilot and parts search engine for electronics design.

- Led the migration of analytics workloads to a central data warehouse and owned QA and performance for about 50 production queries, cutting average reporting query time from ~190 s to ~2 s (Django, BigQuery, Airbyte, SQL).
- Helped refactor data governance into a single source of truth, removing inconsistencies between the web app and analytics systems.
- Designed and launched ad retargeting campaigns from scratch using audiences built from first-party platform interactions.
- Improved spam detection on lead forms, which sharply reduced low-quality and fraudulent submissions, and implemented a free tier for a core product to lower the barrier to sign-up (Python, Django).

Stack: Python, Django, FastAPI, Elasticsearch, PostgreSQL, BigQuery, Redis, Docker, Heroku

Software Engineer II · Metrike

Oct 2023 – Aug 2025

- Rebuilt the ad tech ETL pipeline, reducing full execution time by 94% (16 h → 1 h) and one critical task by 99% (4 h → 20 s) (Python, Pandas, Apache Airflow, SQLAlchemy, Docker, PostgreSQL).
- Built concurrent web scrapers feeding AI brand-safety categorization of millions of URLs per day (Python, BeautifulSoup, OpenAI).
- Built an Excel report generation API for large files and cut its memory use by over 75% by fixing memory leaks (Django, Pandas, Celery, Redis, AWS S3).
- Designed an analytics logging API with anti-bot protection (rate limiting, User-Agent checks, HTTP fingerprinting) and load-tested it with Gatling (FastAPI, Redis, PostgreSQL, NGINX).
- Processed brand-safety, geolocation and SafeFrame data for national campaigns of Caixa Econômica Federal, Ministério da Saúde and SEBRAE, among others. Mentored junior engineers and trainees.

Software Engineer I · Metrike

Mar 2022 – Oct 2023

- Built an internal app for validating daily ad banner snapshots (React, Django), concurrent scrapers for a database of every Brazilian city and state, and the company's marketing website.

Freelance Experience

Software Engineer (freelance) · MRF

Oct 2024 – Jun 2025

- Architected and led a full-stack platform for fixed-income investors covering debentures and other assets: a scraper-driven ETL (Airflow, Selenium, MySQL), a FastAPI backend with Redis caching and a Next.js frontend with SSR, deployed on GCP and Vercel.
- Implemented an IRR calculator for fixed-income assets that handles business days, inflation series, compounding and amortization, with portfolio tracking and cash-flow projections (Python, NumPy).

Data Engineer (freelance) · PB Agora

Feb 2025

- Automated a manual daily extraction of tide data from the Brazilian Navy and built a news sentiment analysis app (Python, Flask, OpenAI).

Software Engineer (freelance) · DeuCrédito

Oct 2023 – Dec 2023

- Built a partner onboarding flow for a fintech SaaS with live preview of page customization (Django, HTMX, JavaScript).

Skills

Backend: Python, FastAPI, Django, Django REST Framework, Flask, Celery, PHP, Laravel

Data and databases: BigQuery, MySQL, PostgreSQL, Redis/Valkey, MongoDB, Elasticsearch, Apache Airflow, Pub/Sub, Pandas, NumPy, SQLAlchemy, Airbyte

AI / LLMs: Claude, Gemini (Vertex AI), OpenAI; LLM agents with tool use, classification, evaluation against gold sets

Ad tech: VAST 2.0–4.2, VMAP, VPAID, OMID, MRAID 3.0, IAB TCF v2, GARM brand suitability, IVT detection, viewability

Mobile and frontend: Kotlin (Android), Swift (iOS), JavaScript/TypeScript, React, Next.js, TailwindCSS

Infra and testing: Docker, NGINX, GCP, DigitalOcean, Prometheus, Grafana, k6, Gatling, Playwright, Git

Education and Languages

Bachelor's in Computer Science, Universidade Federal da Paraíba (UFPB)

2023 – 2027 (in progress)

Languages: Portuguese (native), English (fluent), Spanish (basic)