Gonçalo Magno

Generalist software engineer · agentic engineering

Brazil and Portugal · remote (GMT-3 / GMT)
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Summary

Generalist software engineer with over a decade of experience designing, building and running cloud-native systems, mostly in Python on AWS. Particularly strong in observability (logging, metrics and tracing with Datadog, Dynatrace and OpenTelemetry), public APIs and MongoDB, and in agentic engineering: bringing AI into products and into the way teams build software. Comfortable owning services end to end, from design to production. European citizen, fluent in English and Portuguese.

Experience

Senior Software Engineer, VASS 2024–present

Remote · client TELUS Health

User Management and Onboarding team, which owns how client organisations and their members are onboarded onto a wellbeing platform.

- Designed and built a public Organisations and Users API from inception to general availability (async FastAPI and Pydantic on ECS Fargate and Lambda, event-sourced over MongoDB and DynamoDB, Terraform); it is the platform's programmatic onboarding channel for enterprise clients across four regions.
- Delivered standards-first SCIM 2.0 provisioning (RFC 7643/7644) with PATCH, filtering, bulk operations and cross-region identity uniqueness; implemented and tested separate integrations with Microsoft Entra ID and Okta, and passed Microsoft's SCIM validator.
- Conceived and built, end to end, an AI assistant for customer-support agents, now in production: it streams answers from a Claude-based copilot with retrieval and MCP tools through a hardened FastAPI streaming gateway and an accessible React widget, with SSO, fail-closed access control, per-user rate limits, a spend kill switch and test-enforced PII/PHI-free logging.
- Hands-on in the Datadog-to-Dynatrace migration: OpenTelemetry over OTLP for containerised (ECS) workloads, W3C trace context propagated across Step Functions and the OneAgent layer for Lambda, with a dual run for a zero-gap cutover and the tagging standard encoded once and reused.
- Traced nearly half of the production CloudWatch bill to a monitoring integration polling metrics across unused AWS regions; the fix shipped the next day.
- Raised the engineering baseline across the team's Python services: modern tooling (uv), pre-commit with Ruff and strict type checking, code and dependency scanning, keyless OIDC deployments and automated semantic-versioned releases.
- Built the team's shared AI tooling (an AI pull-request reviewer packaged as a reusable action, plus per-repository agent instructions and guardrails), making agentic development part of the everyday workflow.
- Re-architected onboarding validation into serverless validation and data-comparison services (AWS CDK, Step Functions, ECS) that reject bad client data before it reaches the platform.
- Recognised several times for this work; regularly demonstrated new features at the fortnightly engineering-wide demo.

Founder and Contract Software Engineer, WebOps Tech 2018–2024

Remote

Own consultancy (web-ops.tech), delivering backend engineering for scale-ups in fintech and web3, e-commerce and mobility.

- **Zharta** (on-chain lending, web3; 2023): built serverless services on AWS Lambda, DynamoDB and Terraform; introduced CloudWatch dashboards and alarms as code routed to Slack; removed deployment downtime by rolling out Lambda aliases; introduced dependency injection to make the services testable.
- **Kencko** (e-commerce): worked on Python services (FastAPI and Flask) on PostgreSQL and Kubernetes; extracted logic from the monolith into a new FastAPI service; owned integrations with the Shopify GraphQL API, shipping carriers, Contentful and SendGrid.
- **Rydes, now NAVIT** (mobility): built payouts and a custom invoicing mechanism in NestJS and PostgreSQL on GKE; integrated digital banking and card payments, and CO_2 offsetting.

Software Developer, Unity Technologies 2017–2018

United Kingdom

- Designed and built a device booking and provisioning system spanning many gaming platforms, operating systems and architectures, giving developers cloud-like access to physical test devices.

Software Engineer, Imagination Technologies 2012–2016
United Kingdom

- Led a small team building an in-house provisioning automation framework in Python (Django).

Education

MSc Electronics and Telecommunications Engineering, University of Aveiro 2002–2008
Integrated master's degree, Portugal (BSc 2006, MSc 2008).

Skills

Programming languages: Python, TypeScript/JavaScript, Bash, C

Cloud & infra: AWS (Lambda, Step Functions, ECS Fargate, SQS, EventBridge, DynamoDB, Cognito), GCP, Terraform, AWS CDK, Docker, Kubernetes

Data: MongoDB, PostgreSQL, DynamoDB

Observability: OpenTelemetry, Dynatrace, Datadog, CloudWatch; logging, metrics and tracing

AI / agentic engineering: LLM-backed product features (Claude, RAG, MCP), AI code review, agentic development workflows

Frameworks and standards: FastAPI, Pydantic, SCIM 2.0, OAuth 2.0

Practices: CI/CD and release automation, testing, code review, technical writing

Selected Open Source

- spyci: Python parser for SPICE raw simulation files.
- tmon: command-line CPU temperature monitor.
- igl: OpenGL bitmap image viewer in C.
- vds: semantic search over text documents.

Languages

Portuguese: Native

English: Fluent