

Augusto Bastos

Applied AI Engineer — Python · LLM/RAG · MCP · AI Automation

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TECHNICAL SKILLS

Applied AI: LLM APIs, RAG, embeddings, pgvector, agent workflows, MCP (Model Context Protocol), prompt and tool design

Engineering: Python, TypeScript, SQL, FastAPI, PostgreSQL, Supabase, REST APIs, Go and Rust (protocol verifiers)

Testing and delivery: automated tests with pytest and Playwright, CI/CD with GitHub Actions, Docker

Product and cloud: React, Next.js, Cloudflare Workers/Pages, PostgreSQL Row-Level Security, Stripe Connect

PROJECTS

PitchPilot & rag-demo — Applied AI / RAG Systems

2026

github.com/augbastos/rag-demo

- PitchPilot: a RAG copilot for field sales pitches. Its TypeScript backend runs tenant-scoped pgvector search over Gemini embeddings, grounds each answer in the retrieved context and logs its sources; re-indexing embeds only changed chunks.
- rag-demo (open source) shows the pipeline in plain Python: overlapping chunks → local embeddings → pgvector retrieval → Gemini answers that cite source files or decline. Postgres in Docker Compose; offline pytest tests in CI.

Wavr — Privacy-First Multi-Modal Sensing & Agent Interface

2026 – Present

Open source (AGPL-3.0) | github.com/augbastos/wavr

- Python/FastAPI engine that fuses network, Bluetooth and camera evidence into explainable room-presence states, weighting each source by trust and age and recording the evidence behind every state.
- AI agents query house state over MCP (stdio and HTTP; writes opt-in), bound to loopback by default. CI runs the automated regression suite plus mutation checks that deliberately break each stated guarantee and confirm a test fails.

Lucky Cat AI Solutions — Multi-Tenant SaaS Platform

2026 – Present

luckycat.ie

- Pre-launch restaurant SaaS built as one codebase for all tenants: a React/TypeScript ordering app, an operations dashboard (shifts, stock, payroll, cash-up) and AI-assisted sales tooling, backed by Supabase.
- Tenant data is isolated in PostgreSQL with Row-Level Security and checked by Playwright cross-tenant tests. Payments built on Stripe Connect (onboarding, direct charges, application fees); hosted on Cloudflare Pages.

SCPE — Software Provenance Protocol

2026

Open source (Apache-2.0) | github.com/augbastos/scpe

- Authored the spec for verifying which git-host account signed an artifact, using the SSH keys that host publishes. Python, Go and Rust implementations must agree on 18 normative test vectors in CI; published to PyPI and as a GitHub Action.

WORK EXPERIENCE

Retail Coordinator — Chemist Warehouse

2026 – Present

High-volume pharmacy retail: daily problem solving, shift team coordination and clear communication with customers.

English Instructor — WSA Languages

2019–2022

Taught English classes, explaining complex concepts clearly to learners at different levels.

Receptionist & IT Technician — Unified Educational Foundation

2014–2018

Technical support: troubleshooting hardware, software and user issues, plus front-desk and administrative operations.

EDUCATION AND CERTIFICATIONS

Graphic Design — Universidade Veiga de Almeida, 2015–2018

High School & IT Technician — Emmanuel Leontsinis, 2012–2014

Cambridge English: Proficiency (CPE) — C2

LANGUAGES

Portuguese — Native | English — C2