

# Tiago Fortunato | AI Application Engineer | Product Engineer | SaaS

Founder of Odys · MSc Software Engineering · LLMs · RAG · Vision AI

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## Profile

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**AI Application Engineer** and **Product Engineer** in Berlin, shipping AI-powered products end-to-end. Shipped **Odys** ([odys.com.br](https://odys.com.br)) solo from zero to production: Portuguese LLM intake layer, self-hosted WhatsApp integration, Stripe/Pix billing, hardened and monitored. Also built a production RAG career chatbot ([chatbot.tifortunato.com](https://chatbot.tifortunato.com)) and a Vision AI REST API. **MSc Software Engineering** (Berlin 2026). Daily user of **Claude Code** and agentic AI workflows. Trilingual: Portuguese (native), English (fluent), German (C1).

## Skills

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**AI-Augmented Development:** **Claude Code**, Cursor, agentic coding workflows, prompt engineering. Daily user shipping production code with AI as a force multiplier.

**AI & LLM Applications:** LLMs, RAG pipelines, embeddings, vector databases, LangChain, **LangGraph**, ChromaDB, Groq, Llama, Vision AI, LangSmith, RAGAs; hybrid retrieval (semantic + BM25), structured LLM output, prompt engineering, evaluation, observability, streaming SSE.

**Backend & APIs:** Python, FastAPI, REST APIs, PostgreSQL, SQL, SQLAlchemy, Drizzle ORM, Pydantic, Alembic, JWT auth, Pytest; clean architecture, schema design, and automated testing.

**Full-Stack & SaaS:** TypeScript, JavaScript, React, Next.js, Tailwind, Supabase, Stripe, Resend, Upstash Redis; multi-tenant SaaS, subscription billing, transactional email, rate limiting, third-party integrations.

**DevOps & Cloud:** Docker, GitHub Actions, CI/CD, AWS EC2, Nginx, Linux, Let's Encrypt, Railway, Vercel, Git; production deployments, containerization, and HTTPS-secured cloud infrastructure.

## Selected Projects

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**Next.js 16 · TypeScript · Supabase · Stripe · Groq · Docker · Railway** **Berlin**

*Odys: Scheduling SaaS for Freelance Professionals* *2026–present*

WhatsApp-first SaaS platform with an AI intake layer: clients book via natural language or web UI; professionals manage availability, payments, and appointments from a dashboard. Live at [odys.com.br](https://odys.com.br).

- **AI intake (Groq LLM):** parses Portuguese WhatsApp messages, extracts intent as Zod-validated JSON, proposes slots and books; prompt design, tool-calling, retry logic and deterministic fallback built from scratch
- **Multi-tenant SaaS:** booking page per professional (`/p/[slug]`); plan-gated features (free/basic/pro/premium) with trial flow; Stripe + Pix with idempotent webhook handling; Supabase Auth with email verification; Drizzle ORM on PostgreSQL
- **WhatsApp-native automation:** reminders and confirmations via self-hosted Evolution API v2 on Railway, orchestrated by Supabase `pg_cron`; signature-verified webhooks
- **Production maturity:** rate limiting (Upstash Redis), Resend SMTP, Sentry, PostHog, type safety (TypeScript + Zod), CI/CD (GitHub Actions)

**FastAPI · LangGraph · ChromaDB · Groq · RAGAs · Docker · AWS EC2** **Berlin**  
*AI Career Assistant: RAG Chatbot* *2026*  
Production RAG chatbot, migrated from LangChain to **LangGraph** with 7 async nodes, conditional routing, and typed state management.

- LangGraph StateGraph with conditional edges: enrich query, route by project, hybrid retrieve, format context, generate answer, follow-ups; fallback path when no results found
- Hybrid retrieval: semantic search + BM25 fused with Reciprocal Rank Fusion; custom section-aware chunking; RAGAs evaluation pipeline
- Streaming SSE via `astream_events`; self-hosted on AWS EC2 with Docker, Nginx, Let's Encrypt. `chatbot.tifortunato.com` | GitHub

**FastAPI · Groq Vision AI · LangChain · LangSmith · PostgreSQL · Docker** **Berlin**  
*Inspection Management API* *2026*  
Production REST API that classifies inspection photos with Vision AI: upload an image and the system returns severity and damage type with explainable rationale.

- Vision AI via Groq SDK; structured LLM output with LangChain; LangSmith for observability; XAI rationale field for transparency
- JWT auth with admin role; comprehensive Pytest suite covering all endpoints; CI/CD via GitHub Actions; frontend dashboard with image upload and AI status badges. API Docs | GitHub

**YOLOv8 · PyTorch · Python · RDD2022** **Berlin**  
*Road Hazard Detection & Prioritization: MSc Thesis* *2025–2026*  
Deep learning detection pipeline with rule-based expert system for automated road maintenance prioritization (RDD2022). Best config YOLOv8s: **mAP50 0.663, Precision 0.694, Recall 0.604**; rule-based post-processing reduced noisy detections by **31.2%**.

## Experience

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**Odys · odys.com.br** **Berlin, Germany**  
*Founder & Full-Stack Developer* *2026–present*

- Identified a market gap through direct conversations with independent professionals losing bookings to manual WhatsApp workflows
- Owned the full product lifecycle as sole developer: user research, product design, technical architecture, implementation, hardening, and production deployment
- Shipped MVP and iterated based on interviews with 8+ independent professionals; refined product scope 2x before production launch to focus the intake flow on the real bottleneck

**Fortunato Joias, Family-Owned Jewelry Manufacturer** **Brazil**  
*Operations Manager* *2019–2024*  
Owned operations of a small manufacturing company: stakeholder alignment, vendor negotiations, production planning, and end-to-end delivery cycles. Five years of running outcomes before learning to code professionally; the ownership muscle transferred directly to founding a SaaS.

## Education

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**University of Europe for Applied Sciences** **Berlin, Germany**  
*MSc Software Engineering* *2024–2026*

**Hochschule Wismar** **Germany**  
*Exchange Student, Mechanical Engineering* *2014–2016*

**UERJ** **Rio de Janeiro, Brazil**  
*BSc Mechanical Engineering* *2013–2018*

## Languages

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Portuguese (Native) · English (Fluent) · German (C1)