

João Paulo Lomba

AI AUTOMATION ENGINEER — n8n · LLM AGENTS · API INTEGRATIONS

Production AI agents · REST/Webhook integrations · Python · Root-cause analysis

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Available full-time or contract · registered business entity, invoices in USD

SUMMARY

AI Automation Engineer building **production-grade LLM agents and API integration pipelines**. At Escalys — a branding, marketing and technology agency — I architect and maintain a REST/webhook integration mesh (Pipefy → n8n → Asaas → WhatsApp) supporting an operation of 11 pipes and 4 databases, plus Python AI agents that classify documents and extract structured data from PDFs. Independently, I built and run a production WhatsApp ordering agent — OpenAI tool-calling, n8n orchestration, Redis short-term memory — handling **roughly 100 orders every two days** through a third-party REST API, where the hard part was not the integration but containing model failure modes with deterministic code guards. Background spans IT support and infrastructure before development, so I own workflows end to end: design, integration, failure testing, root-cause analysis and documentation. **Professional working proficiency in English** — comfortable in live client meetings and async written communication.

CORE SKILLS

AI & Agents	n8n, OpenAI API (tool-calling agents), Claude API, LangChain, RAG, embeddings, vector databases (pgvector), prompt engineering
Backend & APIs	Python (FastAPI, Django), Node.js/Express, Java/Spring Boot, REST APIs, Webhooks , JWT/OAuth, JSON, Postman
Data	SQL, PostgreSQL, MySQL, MongoDB, Redis — data modeling, migrations, indexing Power BI
Infra & DevOps	Linux, Docker, Docker Compose, Nginx, Git/GitHub, GitHub Actions, CI/CD, AWS (EC2, S3, RDS, Lambda, IAM)
Front & Mobile	React, Next.js, TypeScript, JavaScript (ES6+), HTML5/CSS3, Flutter/Dart, Firebase
Engineering	OOP, Clean Code, SOLID, layered architecture, MVC, testing with Pytest / JUnit / Jest, code review and pull requests
Also worked with	GCP, Azure, RabbitMQ, Kafka, Celery and async processing, Pandas, NumPy, Scikit-learn, Jira/Trello

EXPERIENCE

Process Automation & AI Integrations Engineer (Contractor) — Escalys Jun 2026 – Present
Branding, marketing and technology agency | Remote

- Architect and maintain a **REST/webhook integration mesh** (Pipefy → n8n → Asaas → WhatsApp) supporting an operation with 11 pipes and 4 databases.
- Built **Python AI agents** for automatic document classification and structured data extraction from PDFs, removing manual handling by the team.
- Defined and documented business rules, validations and JSON data handling for a critical multi-system flow, cutting inconsistencies across integrated platforms.
- Run SQL queries on PostgreSQL for data validation; test and document APIs with Postman across the full integration stack.

IT Generalist / Technical Support — Casa Clínica (Animal Health Education Center) 2023 – 2025
Cachoeira, Brazil · Started as intern, hired full-time

- Owned **all IT for the organization**: user support, hardware and software maintenance, infrastructure assistance and day-to-day ticket resolution.
- Taught computing classes to mixed audiences, including children and elderly groups — daily practice translating technical problems into plain language.
- Also covered marketing and digital presence, absorbing the full technology workload of the operation.

Full Stack & Automation Developer — Freelance / Independent 2022 – Present
Client, academic and personal projects | Remote

- Built a **WhatsApp ordering and customer-service automation for a pizzeria**, including error handling and production flow testing.
- Web applications and REST APIs with JWT auth, validation and global error handling (React, TypeScript, Node.js, Python, FastAPI).
- Power BI** dashboards and reports at latec (FADBA, part-time, in partnership with the university and a startup) and for a startup client, sourced from SQL queries and REST APIs.
- Delivered a **mobile app and sales pages** for a clothing retailer, and a jewelry e-commerce platform with transactional email automation in n8n.
- Developed and sold **solo-built 2D games**, concept to delivery.

- Built a **solar-powered Arduino robot**, integrating hardware, sensors and control logic.
- Applied Docker, Linux, AWS and CI/CD pipelines across production, freelance and academic projects (including GCP and Azure).

Computing Instructor & Support — English Language School of Prof. Pedro Borges

2020

- Taught computing classes and supported the equipment and systems used by the school.

FEATURED PRODUCTION PROJECT

Yasmin — WhatsApp AI Ordering Agent (live) · ~100 orders every two days

AI agent (OpenAI + n8n orchestration) that reads the WhatsApp conversation, decides when to query the menu, assembles items / combos / extras and creates real orders via a third-party REST API, with Redis short-term memory and status notifications on the same channel.

- **Root-caused a recurring failure:** the vendor API exposed an **undocumented internal field** sharing the numeric format of real product IDs, causing the model to emit invalid IDs. Fixed with deterministic code guards — after a prompt-level fix had already failed.
- **Found a silent production failure** that had existed for months: an unconnected flow branch producing no user-visible error.
- **Reverse-engineered an undocumented combo pricing rule** from API response evidence.
- **Built a failure-testing suite** (invalid credentials, network timeouts) run on isolated copies of the flow, never risking the live service.

Stack: n8n, OpenAI, REST APIs, WhatsApp API, Redis, PostgreSQL, Webhooks · github.com/joaolombabr/yasmin-whatsapp-ai-agent

Other: Atend IA — chatbot with context persistence (FastAPI, Claude API, PostgreSQL, Redis, Docker) · **Pipefy technical-report extraction pipeline** (production, Escalys) · **Task REST API** — CRUD with DTOs, validation and global error handling (Java 17, Spring Boot 3.2, JPA)

EDUCATION

Technologist in Information Technology Management — UNIAENE-FADBA

2023 – 2025

Certifications: Databases (Oracle, 2025) · Machine Learning (Microsoft, 2025) · Data Science (Udemy, 2025) · Java (Udemy, 2025)

Languages: Portuguese (native) · English — professional working proficiency (B2+), comfortable in live meetings