



● AVAILABLE FOR SENIOR AI & AUTOMATION ROLES (REMOTE)

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Applied AI systems architecture, deterministic automation pipelines and resilient production infrastructure. Over 20 years bridging systems engineering and business bottleneck resolution.



Python



n8n



Supabase



PostgreSQL / pgvector



Docker



Linux Debian



Tailscale



Cloudflare



Mistral OCR



Gemini Vision

Systems engineering & infrastructure

20+ years

Dedicated Linux servers in production

11+ years

Deployed architectures, described below

4

Three pillars, one stack

I don't collect technologies. I design systems where the model, the pipeline and the host that runs them are planned together.

01

Applied AI & Knowledge Retrieval

- Design and delivery of production-grade **RAG** (Retrieval-Augmented Generation) architectures.
- Knowledge bases decoupled into layers (static, contextual, dynamic) on top of vector stores (**pgvector**, **Qdrant**).
- **Human-in-the-loop** review workflows to mitigate hallucinations and keep context evolving.

02

Process Automation & Data Pipelines

- Orchestration of mission-critical workflows with **n8n**, **Python** scripts and RESTful API consumption and exposure.
- High-volume extraction pipelines (distributed web scraping), metric normalisation and JSON/XML structuring.
- Event-driven automation through asynchronous webhooks and message queues.

Platform Infrastructure & DevSecOps

- Administration and **hardening** of dedicated Linux environments (Debian/Ubuntu), built up over more than a decade.
- Containerised architectures on **Docker** and secure peer-to-peer interconnect through a **Tailscale** mesh.
- Edge protection with **Cloudflare** (WAF, DNS, DDoS) and continuous observability and audit with **Wazuh SIEM** and **Grafana**.

CASE STUDIES

Architectures in production

Four systems running in production right now. These are not exercises: each one removed a measurable bottleneck.

CASE 01

RAG system & multi-channel operational triage

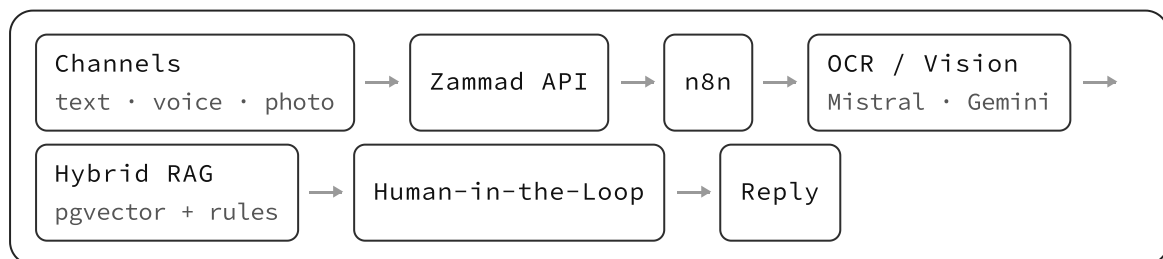
Support and incident-resolution platform for a low-cost messaging operator, covering written and telephone channels.

THE PROBLEM

Support channels saturated by repetitive tracking, quoting and logistics queries, with high contextual variability, both in writing and over the phone.

THE TECHNICAL SOLUTION

- Help desk deployed on [Zammad](#), wired two-way through webhooks to an [n8n](#) orchestration engine, with [Supabase](#) (PostgreSQL) holding cases, conversations and triage state.
- Hybrid RAG architecture: dense vector search combined with heuristic rules for direct triage.
- Text and data extraction from images, delivery notes and invoices through vision pipelines: [Mistral OCR](#) for documents and [Gemini](#) for visual understanding, so triage has the content even when the customer only sends a photo.
- Voice handling: a system that watches the phone voicemail boxes, transcribes the messages, classifies them with the same triage engine and replies automatically when the case does not require a human operator.
- Human-in-the-loop protocol: cases scoring below the confidence threshold are routed to human operators with pre-generated drafts, and every validation feeds back into the vector store.



Stack: n8n · Supabase · Zammad API · pgvector · Mistral OCR · Gemini Vision · Docker · Python

CASE 02

Reverse catalogue ingestion & visual refurbishment generation

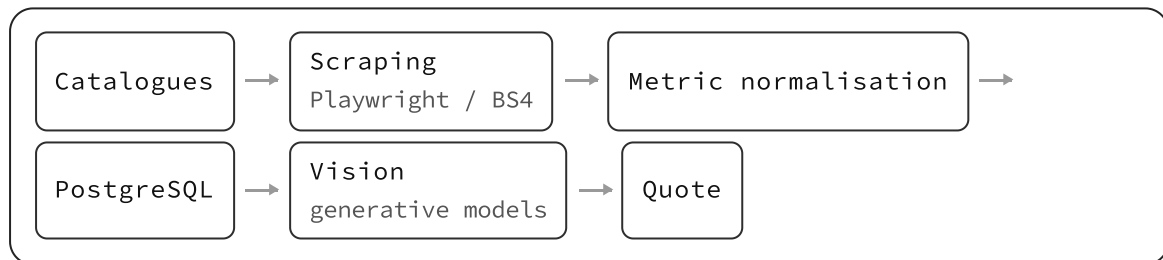
Automated technical quoting for CID Construcciones.

THE PROBLEM

Construction suppliers' technical catalogues scattered and inconsistent, non-standard dimensions, and slow turnaround on visual quotes for customers.

THE TECHNICAL SOLUTION

- Scraping pipelines built for systematic capture of images, dimensions and technical datasheets at scale.
- Metric normalisation and metadata ingestion into relational database schemas.
- Wired to generative vision models to project modifications onto floor plans and produce automated technical quotes.



Stack: Python • BeautifulSoup / Playwright • Next.js • REST APIs • Computer Vision

CASE 03

Unified lead ingestion & heuristic spam filtering

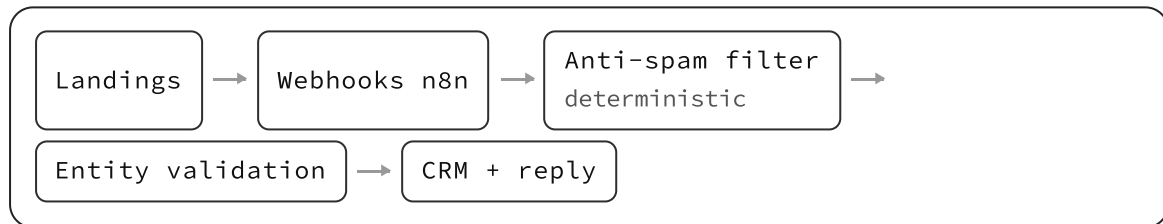
Lead-capture infrastructure for Mudanzas Go.

THE PROBLEM

Incoming requests fragmented across several standalone landing pages, with operations swamped by junk leads and automated spam.

THE TECHNICAL SOLUTION

- Asynchronous webhooks centralised in n8n.
- Intermediate deterministic anti-spam layer with entity validation (phone, postcode, load volume).
- Integrated with the corporate knowledge base to fire assisted operational replies and sync with the CRM in real time.



Stack: n8n • Cloudflare Workers/WAF • Webhooks • OpenAI API

CASE 04

B2B industrial ontology & compatibility graph

STEALTH MODE

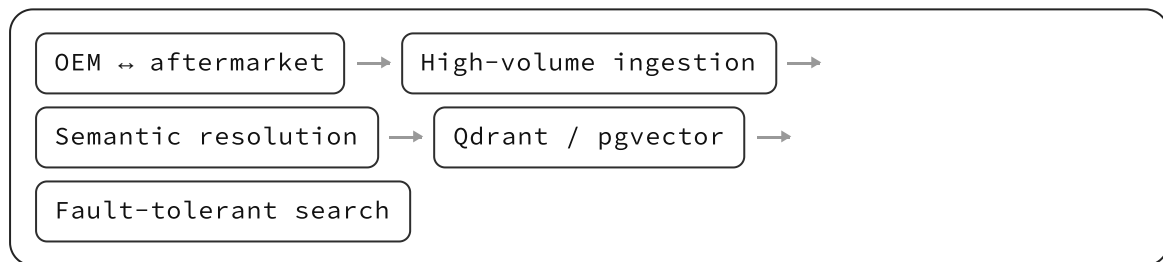
Industrial SaaS platform in development.

THE PROBLEM

OEM versus aftermarket part numbers extremely fragmented, causing mis-purchases and disconnected catalogues.

THE TECHNICAL SOLUTION

- Ontology model plus a relational/vector database tuned for cross-reference mapping.
- High-volume ingestion pipeline with semantic resolution of equivalences across manufacturers.
- Semantic search engine tolerant of typos and workshop jargon.



Stack: FastAPI / Python • PostgreSQL • Qdrant • Docker • Tailscale

THE TRAJECTORY

From bare metal to AI systems

Modern solution engineering doesn't stand on a vacuum of cloud libraries. My technical track began over two decades ago in the United States, building LANs and configuring Windows NT and Mac servers at [Montachusett Regional Vocational Technical School](#) (Monty Tech).

That physical foundation was consolidated working directly on critical infrastructure and data switching in the **ONO** and **Orange** data centres, and running dedicated Linux production servers for more than 11 years at **DoctorSEO**. When I design a solution with LLMs or automate a workflow in n8n, I do not just understand the API call: I understand container memory, the encrypted network tunnel, port security and whether the business model holds.

2002 – 2003

Monty Tech · IT Shop

LANs, Windows NT and Mac. The physical foundation for everything that came after.

DATA CENTRES

ONO / Orange

Critical infrastructure and in-room data switching.

11+ YEARS

DoctorSEO · Linux in production

Dedicated server administration, hardening and service continuity.

PRESENT

Applied AI & automation

RAG architectures, n8n orchestration and containerised platforms in production.

CONTACT

Let's talk about systems

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CV

[Technical CV \(PDF\)](#)