Jair Franco
Software Engineer · AI & Systems

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SUMMARY

Software & Systems Engineer with **5+ years** building production infrastructure, backend services, and AI-powered automation at **SpotUno**. Contributor to the **OpenClaw** ecosystem — authored plugins, security-audited forks, and human-in-the-loop agent workflows. Hands-on expertise in **Go**, **Clean Architecture**, GPU-accelerated RAG pipelines, and full-stack systems spanning embedded networking to cloud-native AI.

TECHNICAL SKILLS

Languages: Go, TypeScript, Python, JavaScript, Java

Agent Frameworks: OpenClaw, PicoClaw/PawGo, LangChain, AutoGPT

Databases: PostgreSQL, PostGIS, Qdrant, pgvector, Redis, SQLite

Security: AST analysis, OAuth 2.0, MCP isolation, code auditing

AI / ML: LLMs (GPT, Gemini, Ollama), RAG, Embeddings, Whisper

Infrastructure: Docker, Linux, NVIDIA CUDA, Git, CI/CD

Networking: L2/L3, OSPF, BGP, SNMP, VLANs, WISP

Architecture: Hexagonal, Clean Arch, MCP, Microservices

PROFESSIONAL EXPERIENCE

SpotUno
Chihuahua, México · Hybrid

Mar 2021 — Present

Software & Network Engineer — AI Automation
Jan 2025 — Present
- Spearhead AI-driven automation integrating LLMs and agent frameworks into production workflows; deploy and maintain OpenClaw-based agents.
- Architect **CLAW-S Network Manager** — full-stack NOC/CMDB platform managing 880+ devices, 14K+ links across 75+ sites.
- Engineer backend services in **Go (Hexagonal Architecture)**, Python, Docker, and PostgreSQL.

Network Engineer
Mar 2021 — Dec 2024
- Operated multi-vendor L2/L3 infrastructure (Cisco, Ubiquiti, Mikrotik) with OSPF, BGP, VLANs, and WISP across 75+ sites.
- Built Python-based monitoring automation, reducing manual troubleshooting; developed real-time network dashboards.

OPEN-SOURCE & KEY PROJECTS

PawGo — Security-First AI Agent
Go 87% · AGPL-3.0 · 2025
Security-focused fork of PicoClaw CLI — OpenClaw ecosystem
- Engineered **AST Effect System** (mvdan/sh parser) — classifies every shell command before execution. No regex, full semantic security.
- Completed **27-finding security audit**: fixed shell pipe deadlocks, zip bomb protection, MCP secret leakage, TOCTOU races, session OOM (LRU eviction).
- Integrated 20+ LLM providers with smart routing and fallback chains. **15+ messaging channels** (Telegram, Discord, Slack, Matrix). 40/40 test packages.

`Go 1.25` `AST Security` `MCP Client` `Protobuf` `CGO-free` `Cobra CLI` `WebSocket` `OAuth 2.0`

CLAW-S Network Manager — NOC/CMDB Platform
Go 48% · TS 42% · 2025
- Enterprise-grade **CMDB + NOC** with autonomous discovery (ARP, OSPF, BGP, SNMP) — zero manual device registration across 880+ devices.
- Real-time topology visualization (D3.js + PostGIS), health scoring (A–F), anomaly detection via SSE pipeline, config drift tracking.

`Go` `Hexagonal Arch` `Next.js 14` `PostgreSQL` `PostGIS` `Redis` `D3.js` `SNMP`

Approval Buttons Plugin — OpenClaw
TypeScript · ★ 11 · npm
- Shipped production plugin adding **inline approval buttons** (Allow / Always / Deny) for AI agent execution control on Telegram and Slack.
- Architected **HITL workflows** with auto-resolve, health checks, and multi-channel support. Published to npm registry.

`OpenClaw SDK` `TypeScript` `Telegram Bot API` `Slack Block Kit` `HITL` `npm`

System Control Panel — GPU-Accelerated RAG Platform
Python · MIT · 2025
Local-first AI infrastructure dashboard with semantic knowledge engine
- Developed **RAG engine** with GPU-accelerated bge-m3 embeddings (**~8ms inference**, RTX 3080), hybrid search (dense + BM25), Qdrant vector DB, conversation memory.
- Implemented intelligent **VRAM mode switching** (gaming/work/clean), real-time GPU telemetry, network SLA/MOS scoring, system health auto-remediation.

`FastAPI` `bge-m3` `Qdrant` `Ollama` `CUDA / PyTorch` `Hexagonal Arch` `WebSocket`

Additional Projects
Go / Python / TypeScript
- **DouyinStream Pro** — Python→Go rewrite; multi-strategy extraction pipeline, 26+ quality tiers (H264/H265), anti-WAF bypass, 28 security audit reports.
- **CrediNet v2** — Full-stack credit management (FastAPI + Clean Arch, React + Vite). Biweekly payment engine with automated amortization schedules, associate credit lifecycle, period-based debt reconciliation (30% late fees), 20+ API routers, PostgreSQL triggers for payment generation and audit logging.
- **NeMo AI Assistant** — Local-first personal AI (NVIDIA NeMo, Ollama, Docker).

EDUCATION

Instituto Tecnológico de Chihuahua II
B.S. Systems Engineering (Ing. en Sistemas)

CBTis 122
IT Programming Technician · 2012 — 2015

LANGUAGES

Spanish: Native

English: Intermediate — strong technical reading/writing

HIGHLIGHTS

- Contributor to the **OpenClaw** ecosystem on GitHub
- 200+ GitHub contributions (past year)
- 37 public repositories (Go, TS, Python)
- Open to remote & hybrid roles