

JOÃO VITOR CUNHA DOS SANTOS

FULL-STACK SOFTWARE ENGINEER | BACKEND, AI AGENTS & PRODUCTION SYSTEMS

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PROFESSIONAL SUMMARY

Full-Stack Software Engineer and open-source contributor to Hermes Agent (Nous Research), building production web products, AI-agent infrastructure, backend APIs, and real-time systems. Hands-on across TypeScript, Python, PostgreSQL, Docker, Linux, React/Next.js/Preact, REST APIs, and WebSockets. Combines product ownership, architecture, deployment, and verification-driven engineering to turn operational needs into reliable software.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python, SQL, C#, Java, Dart, Go

Web & Backend: Node.js, Express, NestJS, FastAPI, React, Next.js, Preact, REST APIs, WebSockets, JWT, OAuth2

Data & Infrastructure: PostgreSQL, Prisma, Redis, SQLite, Supabase, Docker, Nginx, Linux, GitHub Actions

AI & Automation: LLM agents, Hermes Agent, MCP, tool orchestration, persistent memory, scheduled jobs, webhooks

Quality & Engineering: Pytest, Vitest, Playwright, TypeScript, API design, CI/CD, observability, responsive UI, regression testing

PROFESSIONAL EXPERIENCE

Software Developer | PBC Technology | Maringá, PR, Brazil

- Designed and delivered backend services and full-stack applications using TypeScript, NestJS, PostgreSQL, Docker, and Linux-based production environments.
- Built real-time workflows with WebSockets and database-backed APIs for operational dashboards and business monitoring.
- Developed AI-agent and automation tooling for workflow execution, persistent sessions, tool integration, and developer productivity.
- Improved reliability through modular architecture, API documentation, structured logging, deployment automation, and production-focused debugging.
- Worked directly with stakeholders to translate operational problems into technical roadmaps and deployable software.

Mobile Developer / Full-Stack Developer | DataClick Project | Remote | 2025

- Led development of a Flutter educational application, covering responsive mobile UI, state management, API integration, and offline-capable data flows.
- Integrated local persistence, Firebase synchronization, authentication, analytics, and error tracking for unstable-connectivity scenarios.

OPEN SOURCE & SELECTED PRODUCTS

Hermes Agent Ecosystem — Open-Source Contributor & Tool Author | Python, Pytest, AsyncIO

- Contributed an upstream Nous Research gateway reliability fix preserving peer routing across context-compression recovery, with regression coverage for session persistence and stale-state pruning (commit d5b4879d).
- Built hermes-free-ride, a tested Python CLI for task-aware model routing across OpenRouter and NVIDIA NIM with live probes, caching, cooldowns, and health-based fallback rotation.

PLFY — Founder & Full-Stack Engineer | Preact, TypeScript, Python, PostgreSQL, Stripe

- Built and operates plfy.online, a production offline-first journal with authenticated cloud sync, media handling, guest mode, subscription billing, responsive UX, and automated Vitest/Playwright QA.

MangaMazing — Full-Stack Engineer | Next.js, Express, Prisma, WebSockets, Docker

- Built mangamazing.com, a multilingual manga platform with connector-based source aggregation, background downloads, real-time job progress, source health monitoring, and Kindle conversion through KCC.

Pool AI Platform — AI Systems & Infrastructure | Hermes Agent, Python, Linux, Docker

- Designed and operates a self-hosted personal AI platform integrating Telegram, persistent memory, reusable skills, scheduled automation, subagent delegation, webhooks, health checks, and recovery workflows.

EDUCATION, CERTIFICATIONS & LANGUAGES

Technology Degree in Systems Analysis and Development | UniCesumar | Completed 2025

Certifications: Scrum Fundamentals — SCRUMStudy (2024); Python Bootcamp — Matera (2024); WorkinTech — UniCesumar/LATECH (2024); Java & OOP — Alura; C# Programming Logic — Udemy

Languages: Portuguese — Native | English — Advanced professional proficiency in technical writing and documentation