

Gustavo Mota Macedo

Fullstack Developer

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About me

Autonomous systems engineer who builds **agents with the capacity for perception, decision-making, and action**. In the physical world. Work where AI meets real-world operation: controlled access, hardware automation, pipelines with fallback, and execution governance. I don't deliver demos—I deliver systems that work under pressure.

Practical experience with **Python, Java Flask, Spring Boot, React, AWS, WebSockets, Redis, Lang Chain**, and integration with hardware via **Raspberry Pi (GPIO/relay)**.

Recent performance in **MagicPass**, accreditation system with **Facial recognition + QR Code + BI**, used in real-world events and designed for critical queues and high-density access.

Technical Skills

AI / Agents / Computer Vision

AWS Rekognition, local fallback on Raspberry Pi, embeddings, Lang Chain, automated authentication pipelines.

Backend

Java, Python, Spring Boot, Flask, REST APIs, JWT/RBAC Authentication, WebSockets, SQLAlchemy

Agent Engineering

Task orchestration with LLMs, Task Based Agents, Lang Chain, short/long-term memory, human fallback, decision logging, OpenAI SDK, Ollama

Databases

MySQL, PostgreSQL, PGVector, Firestore, NoSQL

Infrastructure / DevOps

AWS, Docker, Kubernetes, Linux, CI/CD, monitoring and telemetry

Automation / Integration

n8n, Webhooks, REST APIs

Featured Project: MagicPass (AI + Facial Recognition + Edge + AWS)

Intelligent accreditation system used at the event.**HYPR Halloween 4 Nightcore District.**

Key results:

- **371 participants processed**
- **89.2% via automatic facial recognition**
- **98.3% of operations without technical errors.**
- **Only 2.7% of manual releases**
- Critical peak stabilization between 20:10–20:40 after ratchet adjustment

Applied technology:

- Authentication pipeline with **AWS Rekognition** + local fallback onboard
- Facial embeddings stored as **MySQL BLOB**
- Communication with hardware: **WebSocket → GPIO → relay (dry contact)**
- Full-stack architecture: **Python/Flask + React + AWS**

Experience

Java Programming Instructor - DNC School

December 2025 - Present | São Paulo - SP

- Development of video lessons and articles on Java and Spring Boot programming for the DNC school.
- Active support and assistance to students

- Development of exploratory projects, from validation and requirements gathering to final correction, with students.

Fullstack + AI Agent Developer — Legal Operator

May 2025 – Present | São Paulo – SP

- Development of agents and automations with **Python, Flask, n8n and OpenAI SDK**.
 - Infrastructure in production at **AWS** with authentication, logs, and monitoring applied.
 - Implementation of dashboards and data-driven operational analytics features.
 - Critical integrations for asset and event management platforms.
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Training

computer Science—City University of São Paulo

Feb/2022 – Dec/2025

I am looking to join autonomous agent engineering teams in startups where I can design robust and complex systems — not just API calls.