Franco Hernández Piloto

Computer Scientist | AI Developer | Full-Stack Developer | Software Developer
francohernandezpiloto@gmail.com | github.com/JackRipper01 | t.me/Jackripper01

Education

Bachelor's Degree in Computer Science — University of Havana
Faculty of Mathematics and Computer Science (MatCom)

Languages

- **English:** C2 Proficient — EF SET Certificate (73/100)
- **Spanish:** Native Proficiency

Professional Summary

Software Developer with 2+ years hands-on experience in full-stack development and a specialization in AI and Large Language Model integration. Proven ability to architect and implement complex systems from scratch, demonstrated by developing real-time AI sales assistants and multi-agent simulation engines. Adept at rapid learning and applying core computer science principles to solve challenging problems.

Technical Skills

Programming Languages: Python, JavaScript, TypeScript, C#, C, Dart

Frameworks & Libraries: Django, FastAPI, React, Flutter, .NET, Node.js

AI & Machine Learning: LLM Integration, Agent-Based Systems, RAG, Prompt Engineering

Databases: PostgreSQL, SQL, Supabase, Database Design

DevOps & Tools: Docker, n8n, Git, Linux, CI/CD Concepts, CLI

Professional Experience

AI & Full-Stack Developer
Real-Time AI Sales Assistant. Client: Yula Studio

- Developed a full-stack web application using React for the frontend and a Python FastAPI backend to deliver real-time AI coaching during sales calls.
- Developed comprehensive CRUD functionality for user-defined sales milestones, stored in Supabase.
- Engineered a real-time AI engine to analyze live conversation transcripts, dynamically tracking and auto-completing both pre-defined sales objectives and personalized user milestones.
- Implemented a real-time, context-aware AI chatbot whose conversational context dynamically updates as the call progresses, providing relevant guidance.
- Deployed a Chrome Extension version of the product, expanding accessibility and enabling seamless integration directly into browser-based sales workflows.

- Designed the system to support both in-call assistance and robust post-call data aggregation for performance analysis.

Technologies Used: React, FastAPI, Python, Supabase (Cloud Database), Large Language Models (LLM), Real-Time Audio Processing, Chrome Extension API

See project visuals on my portfolio: *github.com/JackRipper01*

Backend Developer

Client: Granazul

- Worked as a **Django Backend Developer** within a multidisciplinary team of 30+ professionals, including frontend developers, QA engineers, and testers.
- Contributed to the development and maintenance of the backend logic, collaborating with the team to support the platform's core functionality.
- Assisted in building and maintaining backend features using **Django**.
- Worked alongside team members to coordinate feature integration and ensure code quality.
- Collaborated with testers to identify and resolve issues, ensuring a stable production environment.

Technologies Used: Python, **Django**, Git, Team Collaboration Tools

AI Research & Development

AI & LLM Systems Researcher

Dynamic World Storytelling with LLM Agents Academic Thesis & Research in collaboration with Dr. Alejandro Piad Morffis.

External Recognition: Featured in the Computist Journal article **"AI Storytelling"**, highlighting the project's innovative approach to emergent narrative generation.

- Architected and implemented a multi-agent simulation engine from scratch to generate dynamic, evolving stories powered by Large Language Models (Gemini, GPT).
- Engineered complex, context-aware prompt chains to ensure coherent agent behavior and creative narrative progression.
- Built the core simulation loop managing world state, agent decision-making, and time progression.

Technologies Used: Python, LLM APIs, Agent-Based Simulation, System Design **GitHub Repository**

Featured & Additional Projects

n8n Automation for AI Code Context Builder - Telegram Bot

- Engineered a Telegram bot that processes entire project directory structures (files and folders) and consolidates them into a single, formatted text file optimized for LLM context.
- Built a robust, multi-step workflow in **n8n** to handle recursive file scanning and processing.
- Solved the "context window" challenge for developers by streamlining the process of feeding codebases to AI assistants.

Technologies Used: n8n, Python, Telegram API, Automation, File System Processing

See project visuals on my portfolio: *github.com/JackRipper01*

Decentralized FTP Server

- Designed and developed a peer-to-peer file transfer system with a decentralized network architecture.

Technologies Used: Python, Network Protocols GitHub Repository

Information Retrieval System

- Built a full search engine implementing document processing, indexing, query expansion, and vector space model ranking.

Technologies Used: Python, Information Retrieval Theory GitHub Repository

Compiler for a Custom Programming Language

- Developed a complete compiler handling lexical, syntactic, and semantic analysis, and generated CIL intermediate code from an abstract syntax tree.

Technologies Used: Python, Compiler Design Principles GitHub Repository