José Andrés Menchaca Medina

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Systems Engineer specializing in Python Backend and high-performance architecture. I build scalable APIs with a Linux-first mindset, orchestrating workflows via the Debian CLI to solve business challenges through clean, efficient code. Expert in technical documentation and knowledge management for distributed teams. Recently I achieved a perfect score (100/100) in my professional defense.

ENGINEERING EXPERIENCE & PROJECTS

- **Enterprise Equestrian ERP (backend-Country) | Python, FastAPI, Supabase, PostgreSQL**
  P*ersonal Research & Development | 2024 – 2025*
    - Architected a scalable backend following Clean Architecture principles, integrating Supabase and PostgreSQL for complex enterprise data management.
    - Automated business logic and task scheduling using APScheduler, including real-time Telegram notification services.
    - Achievement: Awarded a perfect score of 100/100 for this engineering thesis project.

- **AI-Driven Industrial Safety (eppCheck) | Python, YOLOv8, PyTorch, FastAPI**
  University AI Project | 2025
    - Engineered a real-time PPE detection system using YOLOv8 and PyTorch, achieving high-accuracy inference for industrial safety compliance.
    - Developed an asynchronous notification pipeline via FastAPI for instant incident evidence capture and automated alerts.

- **FastAPI Project Scaffolder (mkf) | Python, Bash, CLI, Git**
  Personal Project | 2025
    - Built a high-efficiency CLI tool to bootstrap production-ready FastAPI applications, automating venv and git initialization via terminal.
    - Optimized developer workflow by reducing project setup time through automated boilerplate generation.

- **AI-powered Gym Management (smart-gym) | Python, FastAPI, React, CompreFace**
  Open-Source Project | 2025
    - Developed a multi-service architecture featuring real-time Facial Recognition with CompreFace integration and a modern React frontend.

EDUCATION & CERTIFICATIONS

- B.S. in Systems Engineering | Universidad Privada del Valle | 2022 – 2025
    - Honors: Graduated with a 100/100 Private Defense score.
- English Professional Proficiency (B2) | UMSS | 2021

LANGUAGES

- Spanish: Native
- English: Professional Working Proficiency (B2)

PROFESSIONAL ATTRIBUTES

- **Systems Thinking:** Ability to decompose complex business requirements into modular backend architecture.
- **Documentation-as-Code:** Committed to Markdown/Obsidian for system maintainability and team onboarding.