

Jorge Ramos Santana

COMPUTER SCIENCE GRADUATE · NETWORK ENTHUSIAST

Madrid, Spain

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“Passion for networking, systems administration, cybersecurity, and low-level programming.”

Education

UC3M(Universidad Carlos III de Madrid)

B.S. IN COMPUTER SCIENCE AND ENGINEERING

Madrid, Spain

2020 - 2024

UC3M(Universidad Carlos III de Madrid)

M.ENG. IN COMPUTER ENGINEERING

Madrid, Spain

2024 - 2026

Skills

Programming Python, C/C++, Node.JS, RISC-V Assembly, LaTeX

Web Flask, Express

Databases Oracle, MongoDB, Cassandra

Containerization, VM Docker, Docker Compose, Proxmox, VMware Workstation, VMware Fusion

Networking OpenWrt, Unifi Network Application, pfSense

Version Control git

Languages English (Native), Spanish (Native)

Projects and Experience

Personal Project

HOMELAB

2024 - PRESENT

- Experience in virtualization and managing virtual machines with Proxmox
- Set up and maintained a DNS resolver for efficient domain name resolutions.
- Installed and configured OpenWRT for advanced network management and firewall capabilities.
- Managed and optimized networking using Ubiquiti software.
- Configured and managed wireless and wired network infrastructure.
- Applied security measures including VPN setup, firewall configuration, Fail2Ban for intrusion prevention.
- Performed routine network troubleshooting and diagnostics to ensure optimal performance.

Personal Project

BLACKBIRD

2023 - PRESENT

- OSINT system capable of automatically performing searches on targets
- Facial recognition using deepface
- Cassandra for data storage
- Uses Facebook's FAISS for fast embedding search
- Web crawling using own implementation
- Data analysis using local LLMs

Personal Project

PRESSRIPPER

2024 - PRESENT

- Web scraping tool for newspapers and magazines from pressreader.com
- Reverse engineered API for data extraction
- Exposed vulnerabilities in API authentication that allows for full extraction of all publications in the site

Bachelor Thesis

LINUX KERNEL KEYLOGGER WITH NEAR-ULTRASONIC DATA TRANSMISSION

2024

- Kernel keylogger
- Transmits stored keys to nearby device using near-ultrasonic spectrum
- Fourier Transform, Driver Programming, Kernel-Userspace communication
- Proposed for honors recognition

Certifications

2019 **Certificate of Proficiency in English (C2)**, Cambridge Assessment

*Las Palmas de Gran
Canaria*