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Age: 20 years

Miguel Jesús Paterson González



PROFESSIONAL OBJECTIVE

Computer Engineering student with a strong interest in Cybersecurity and Networking. I am seeking an internship or junior position where I can apply my skills in vulnerability assessment, secure network management, and pentesting techniques. I am eager to work with teams that use tools such as Wireshark, Nmap, and Linux-based systems.

ACADEMIC BACKGROUND

Autonomous University of Madrid (UAM), Madrid

Bachelor's Degree in Computer Engineering (3rd year). (September 2022 - Present)

- Relevant courses: Communication Networks, Computer Systems, Operating Systems.

IES Pintor Antonio López, Tres Cantos

September 2020 - June 2022

- Graduated with a High School Diploma in Sciences (Average Grade: 8.78). (September 2020 - June 2022)

RELATED COURSES

Introduction to Cybersecurity Course - CCN-CERT Atenea (2024)

Acquired knowledge in vulnerability analysis, cryptography, and threat detection.

Summer Course in Introduction to Cybersecurity - U-tad (2021)

Covered basic cybersecurity concepts and an introduction to cryptography.

RELEVANT PROJECTS

Concurrent HTTP Server in C for GET, POST, and OPTIONS requests (2025)

[Github repo](#) - C, sockets, HTTP, threads.

- Developed an HTTP server from scratch, handling GET, POST, and OPTIONS requests using sockets and threading in C, with manual HTTP header parsing.

REST API for Managing Movies and Clients (2024)

[Github repo](#) - Python, SQLAlchemy, PostgreSQL, Docker.

- Designed a REST API with endpoints for movies, shopping carts, and clients. Included session management and authentication. Deployed using Docker containers.

REST Microservice for User and File Management (2024)

[Github repo](#) - Python, Quart, Docker

- Built two independent microservices for user and file library management. Implemented custom token-based authentication, endpoint protection, and Docker deployment.

Traffic Capture, Transmission, and Analysis with libpcap (2024)

[Github repo](#) - Python, libpcap, Wireshark, Mininet, ARP

- Created a tool for Ethernet and ARP traffic analysis with:
 - Frame capture and analysis using libpcap
 - ARP request/response handling and ARP Gratuitous
 - Custom ARP cache with lock-based synchronization
 - Validation in a virtual network (Mininet) with documented test report (memoria.pdf)

TECHNICAL SKILLS

- **Cybersecurity:** Wireshark, Nmap, Metasploit, libpcap
- **Programming Languages:** Python, C, Java
- **Networking:** TCP/IP, SSH, HTTP
- **Operating Systems:** Linux (intermediate), Windows
- **Databases:** PostgreSQL, MongoDB
- **Other Tools:** Git, Docker

SOFT SKILLS

- Strong problem-solving and analytical mindset
- Self-motivated and quick to adapt to new tools and environments
- Effective communication and teamwork in collaborative projects
- Continuous interest in cybersecurity, programming, and Linux systems

LANGUAGES

- **English:** B2 Level (certified).
- **French:** B2 Level (certified).
- **Spanish:** Native.

ACHIEVEMENTS AND RECOGNITIONS

4th Place – Madrid Informatics Olympiad (2021)

Developed efficient algorithmic solutions in competitive programming challenges.