

Luis Miguel Ortiz Muñoz

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Software Developer and Automation Engineer, soon to graduate with a degree in Electronic and Telecommunications Engineering, focused on backend development, process automation, and cloud deployment. Proven experience in creating REST APIs, integrating LLMs (Gemini, Hugging Face), and optimizing workflows, achieving automation rates of over 90%.

Proficient in Python (FastAPI), Node.js, Google Apps Script, Docker, and Render. Solid experience in cybersecurity (firewalls, ACLs) and networking (SDN). Recognized for leadership, critical thinking, and adaptability, with an interest in software development, automation, and cloud computing

TECHNICAL SKILLS

- **Backend & Frameworks:** Python, FastAPI, Node.js, JavaScript, Angular, C++, MATLAB
- **AI & Automation:** Prompt Engineering, Google Apps Script, API Integration (Gemini, Hugging Face, Telegram), Robotic Process Automation (RPA)
- **Cloud & DevOps:** Docker, Render (Cloud Deployment), CI/CD, Git
- **Databases & Web:** SQL, NoSQL, API REST, Web Scraping, HTML5/CSS3, Tailwind CSS
- **Cybersecurity & Networks:** Firewalls, NAT, ACLs, Encryption, VPN, SDN, Mininet, Ryu, Wireshark
- **Tools:** Git, Microsoft 365, Google Apps Script, Power BI
- **Soft Skills:** Leadership, Teamwork, Problem Solving, Adaptability, Critical Thinking, Effective Communication, Professional Ethics, Requirements Management, Process Optimization.
- **Languages:** Spanish (Native), English (C1)

RELEVANT EXPERIENCE

Virtual Assistant (PIET-Bot) with Cloud Deployment – Universidad del Cauca

Cauca, Colombia

Role: Cloud Software Architect and Backend Developer

06/2025 – Present

- Designed and deployed a Telegram bot for student support, using a microservices architecture with FastAPI and Python.
- Implemented a web scraping system (Beautiful Soup) for extracting and caching information from the program's official website.
- Integrated a Large-Scale Language Model (Hugging Face) for natural language processing and response generation.
- Configured a CI/CD workflow using Docker and Webhooks on the Render cloud platform, ensuring high availability.
- **Achievement:** Created a resilient and scalable virtual assistant capable of handling 24/7 inquiries, centralizing information, and reducing the coordination team's operational burden.

Smart Assistant for Academic Triage – Universidad del Cauca	Cauca, Colombia
Role: Coordination Assistant and Automation Developer	08/2025 – 11/2025
<ul style="list-style-type: none"> Design and implementation of an automation system (Google Apps Script) for the triage and classification of emails from the coordination team, using the Google Gemini (LLM) API and the Gmail API. Achievement: Automation of over 90% of manual classification, prioritizing requests by urgency, optimizing workflow, and improving response times for students. 	
SDN Web Application for Simulation and Management – Universidad del Cauca	Cauca, Colombia
Role: Frontend & Network Logic Developer	01/2024 – 06/2024
<ul style="list-style-type: none"> Developed frontend with HTML5/CSS3 for network visualization and real-time configuration of OpenFlow rules. Built a Python backend to connect the network controller's virtual machine with the graphical interface. Achievement: Reduced SDN configuration time by 40% compared to manual process. 	
Biometric Access System - Universidad del Cauca	Cauca, Colombia
Role: Full Stack Developer and Technical Coordinator	07/2024 – 12/2024
<ul style="list-style-type: none"> Implemented secure communication between embedded devices and central server using REST APIs (FastAPI). Led design and development of web platform, integrating backend with machine learning and interactive frontend. Achievement: Managed up to 100 users in database and reduced validation time by 45% 	
Network Security and Management Lab – Universidad del Cauca	Cauca, Colombia
Role: Network Administrator in Simulated Environments	01/2025 – 06/2025
<ul style="list-style-type: none"> Configured firewalls (PA, CP, Cisco, pfSense, FG), NAT, ACLs, and data encryption. Implemented secure tunnels, digital certificates, and best security practices. 	
Achievement: Ensured secure connectivity between multiple clients and servers in test environments.	

EDUCATION

Universidad del Cauca	Cauca, Colombia
Bachelor’s Degree in Electronics and Telecommunications Engineering	02/2021 – Present
Institución Educativa José Eustacio Rivera	Huila, Colombia
High School Diploma	01/2013 – 12/2019

CERTIFICATIONS

GOOGLE	Coursera
Google Cybersecurity Professional Certificate V2	05/2025
IBM	Coursera
Python for Data Science and AI	03/2025
CISCO	California, USA
CCNA: Introduction to Networks	08/2024
CISCO	California, USA
CCNA: Switching, Routing, and Wireless Essentials	08/2024

REFERENCES

Ing. Mary Cristina Carrascal Reyes

Program Coordinator, Electronic and Telecommunications Engineering Universidad del Cauca

Mail: mcarrasc@unicauca.edu.co

(Contact information available upon request)

Ing. Miguel Angel Muñoz García

Classmate & Project Collaborator Universidad del Cauca

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PROFESSIONAL INTERESTS

Software development, cybersecurity, systems automation, networking, and cloud computing.