

Joaquín Pary

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🐙 [GitHub](#) 🔗 [LinkedIn](#) 🌐 [Portfolio](#)

Professional Summary

Advanced Computer Engineering student, close to graduating. Currently working as a Backend Developer and DevOps in a small team, which has given me adaptability, autonomy, and a holistic view of projects. Driven by my growing interest in automation culture and infrastructure, I am currently taking a Diploma in DevOps to deepen my expertise in these areas. I am seeking new opportunities in an organization that allows me to continue my professional development and enhance my collaborative skills in a larger team.

Work Experience

Backend Developer & DevOps – Hydraulics Laboratory (UNC)

June 2025 – Present

Córdoba, Argentina

- Managed cloud infrastructure on AWS (EC2, S3, Lambda) ensuring scalability, security, and availability of laboratory systems.
- Implemented IaC with Terraform to automate provisioning and standardize AWS environments, reducing manual configuration errors.
- Designed and implemented CI/CD pipelines with GitHub Actions for automated build, testing, and deployment.
- Configured IAM roles, security groups, and VPC networks following security best practices.
- Developed Python scripts to automate data processing, improving operational efficiency.

Infrastructure Analyst – Digital Communications Laboratory (UNC)

November 2024 – April 2025

Córdoba, Argentina

- Deployed and managed Linux servers, configuring advanced routing policies and network segregation.
- Provided support and troubleshooting for network performance and dynamic routing issues.
- Wrote technical documentation for systems and configurations, facilitating knowledge transfer.

Education

Computer Engineering

January 2018 – March 2026 (Expected)

FCEFyN, Universidad Nacional de Córdoba

AWS Certified DevOps Course

April 2026 – September 2026

AWS Skill Builder & AWS Academy

Technical Skills

- **Cloud & Infrastructure:** AWS (EC2, S3, Lambda, RDS, VPC, IAM, CloudWatch), Terraform (IaC), Linux.
- **Container Orchestration:** Kubernetes (k3d/k3s), Helm (umbrella charts, multi-env), Docker, Docker Compose.
- **CI/CD & Automation:** GitHub Actions, GitLab CI/CD, Git, Bash, Python.
- **Security & Reliability:** RBAC, Pod Security Standards, IAM, Security Groups, VPC, CloudWatch.
- **Programming:** Python, Bash, C/C++, Go, SQL (PostgreSQL, MySQL).
- **Methodologies:** GitOps, Infrastructure as Code, SCRUM, Technical Documentation.

Relevant Projects

Multi-App Kubernetes Cluster with Helm & GitLab CI/CD

Kubernetes · Helm · GitLab CI · Docker

- Designed and provisioned a multi-node Kubernetes cluster (k3d) with workload isolation using taints, tolerations, and node affinity; dedicated DB node with PersistentVolumes.
- Modeled four microservices (Flask/PostgreSQL/Redis) as a parameterized Helm umbrella chart per environment (DEV/PROD) with reusable helpers and HPA.
- Built a GitLab CI pipeline with conditional builds per directory, immutable image tags (short SHA), and automated chart publishing to private registries.
- Applied least-privilege RBAC and Pod Security Standards (baseline + hardened securityContext per container).
- Delivered an idempotent deployment (cluster + namespaces + secrets + chart) executable with a single command.

Distributed Logistics System – Operating Systems II

C/C++ · Go · Docker · Zephyr RTOS

🐙 [GitHub Repository](#)

- Designed a multi-service logistics platform with a C++ server (multithreaded, POSIX sockets), Go API gateway (Fiber + Traefik), MQTT broker, and Python ML service.
- Containerized the stack with Docker Compose (8+ services): Grafana, RabbitMQ, PostgreSQL, and TLS load balancing with Traefik.
- Developed Zephyr RTOS firmware for ESP32 devices with MQTT publishing, NVS storage, and Qt5 interface.
- Implemented graph algorithms with OpenMP (Ford-Fulkerson, Kaufmann-Malgrange) exposed via REST API.
- Applied hardening: JWT authentication, credential rotation, secrets management with .env, and CI via GitHub Actions.

Automated Satellite Tracking System – Capstone Project

Python · MQTT · ESP32 · Plugin

Architecture

- Designed and implemented a modular LEO satellite tracking system with a plugin-based architecture, extensible to drones, astronomical phenomena, and predefined routes.
- Developed the core server with MQTT communication, dynamic plugin loading, configuration management, and a web monitoring interface.
- Implemented a TinyGS plugin that intercepts satellite IDs, queries orbital APIs (N2YO), and calculates polar coordinates (azimuth/elevation) in real-time.
- Programmed custom ESP32 firmware to receive coordinates via MQTT and generate PWM signals for servomotors, orienting a 433 MHz Yagi-Uda antenna.
- Validated improvements in LoRa signal reception compared to an omnidirectional system through tests with real satellites.

Certifications

- **CyberOps Associate** – Cisco 2024
- **CCNA 1: Introduction to Networks** – Cisco 2023

Languages

- **Spanish:** Native
- **English:** Advanced (Technical Documentation & Professional Competence)