

Hugo Herrera

🔧 Networking & Telecommunications · 🛡️ Cybersecurity



→ `whoami --focus` soc-operations · cloud-infra · security-automation

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CERTIFICATIONS

4

LIVE PROJECTS

21

VERIFIED BADGES

100%

OPEN SOURCE

CCNA

CCNP Enterprise

CyberOps

Ethical Hacking

DevNet

IoT

AWS

Open Source

👤 About

Final-year **Networking & Telecommunications** student at Duoc UC, fresh off a **180-hour internship** deploying and securing network infrastructure. I both build and break: from offline IoT systems to **web-app penetration tests**. CCNP- and CyberOps-trained, comfortable from the cabling rack up to the SOC.

Network Engineering

SOC Operations

Pentesting

Cloud Infrastructure

Linux

Python

📁 Experience

Computing Department Advisor

180 h · 2026

RH Rental Arriendo de Maquinarias SpA · Santiago, Chile

- Deployed and configured network infrastructure: routers, switches and wireless access points.
- Monitored and diagnosed the network for early fault detection and resolution.
- Built structured cabling and organized communication racks to standard.
- Applied security policies: perimeter controls, access control, credentials and firewall management.
- Delivered **Tier 1 & Tier 2 support** for connectivity, web and email incidents.

Education

Networking & Telecommunications Engineering

8th sem.

Duoc UC, sede Maipú · Santiago, Chile

Final semester in progress. Remaining: Capstone project and professional internship. CCNA, CCNP Enterprise, CyberOps and DevNet completed on-site with an instructor — each approved with top marks at the academy.

Verified Credentials

Independently verified on Credly — click any badge to confirm.

See all verified badges on [Credly](#) ↗

— PROJECTS

Smart Irrigation System

LIVE ↗

End-to-end **IoT system** built on Arduino with a YL-69 moisture sensor and water pump. Features automatic control via configurable thresholds, manual override, a Python GUI with 24h history chart, and a local REST API on port 8080 with a mobile-responsive web panel — all running 100% offline.

Python

Arduino C++

Tkinter

PySerial

SQLite

IoT

Open Source

REST API

 View on GitHub

Residential Security System

LIVE ↗

Automated security system with **motion sensors**, automatic door control, audible/visual alarm and surveillance camera. Includes nighttime logic (01:00–05:00) with autonomous activation. Runs on Raspberry Pi, Cisco Packet Tracer, or any PC in simulation mode — same codebase, zero changes.

Python

Raspberry Pi

GPIO

Packet Tracer

IoT

Open Source

 View on GitHub

> CyberOps SOC Lab

[LIVE ↗](#)

Hands-on lab simulating the work of a **Tier 2 SOC analyst**. Covers Wireshark traffic analysis, iptables hardening, Telnet vs SSH credential exposure, PCAP malware forensics, password auditing and HIDS deployment with OSSEC. Includes IoC extraction and step-by-step incident response.

[Wireshark](#)[iptables](#)[OSSEC](#)[Nmap](#)[Kali Linux](#)[Threat Analysis](#)[View on GitHub](#)

🛡️ Flask Web App Security Audit

[LIVE ↗](#)

Full **penetration test** of a deliberately vulnerable Flask app: five findings — Command Injection, Reflected XSS, CSRF, SQL Injection and an exposed debug console (RCE) — each located in source, proven with an **OWASP ZAP scan of 999 requests** plus manual exploits, and shipped with its own remediation. Every attack was run and verified to fire against the target and to be blocked against the hardened version.

[OWASP ZAP](#)[Burp Suite](#)[OWASP Top 10](#)[Python](#)[Flask](#)[SQLite](#)[Open Source](#)[View on GitHub](#)

🧪 On the bench

[ROADMAP](#)

What I'm building next: an **AI-assisted honeypot** that maps attacker TTPs to MITRE ATT&CK, and a **LoRa + MQTT IoT mesh** for connectivity-free environmental monitoring. Repos go public as they take shape.

[Python](#)[Machine Learning](#)[MITRE ATT&CK](#)[LoRa](#)[MQTT](#)[IoT Security](#)

Cybersecurity

- Cybersecurity Cisco Jul 01, 2026
- Defense Analyst Career Path EXAM
- Junior Cybersecurity Cisco Jun 26, 2026
- Analyst Career Path EXAM
- Endpoint Security Cisco Jun 30, 2026
- Ethical Hacker Cisco Jun 26, 2026
- Network Security Cisco Jun 29, 2025
- CyberOps Associate Cisco 2023
- Introduction to Cybersecurity Cisco Jun 26, 2026
- Ethical Hacking & Cybersecurity Management DUOC UC • 2025

Networking & IoT

- Network Technician Career Path EXAM Cisco Jul 01, 2026
- CCNP Enterprise: Advanced Routing Cisco DUOC UC • Mar 11, 2026
- CCNP Enterprise: Core Networking Cisco DUOC UC • Jun 25, 2026
- CCNA: Enterprise Networking, Security & Automation Cisco DUOC UC • 2024
- CCNA: Routing & Switching Cisco DUOC UC • 2023
- Introduction to IoT Cisco Oct 23, 2025
- Networking Basics Cisco Jun 26, 2026
- Network Support and Security Cisco Jun 30, 2026
- Network Addressing and Basic Troubleshooting Cisco Jun 27, 2026
- Getting Started with Cisco Packet Tracer Cisco Mar 14, 2025
- Troubleshooting & Maintaining Cisco IP Networks Cisco 2025
- Emerging IoT Technology Surveillance DUOC UC • 2025

Data, Cloud & AI

- Data Science  Jul 01, 2026
- Essentials with Python
- Artificial  Jun 26, 2026
- Intelligence Fundamentals
- AWS Academy  Nov 26, 2023
- Graduate — Cloud Foundations

Automation & Programming

- DevNet Associate  DUOC UC · 2026
- Python  Jun 26, 2026
- Essentials 1
- Linux Essentials  Jun 26, 2026

Business & Sustainability

- Managing a Business Venture  Jul 02, 2026
- Greenhouse Gas Accounting for IT  Jul 01, 2026

 Cisco credentials via **Cisco Networking Academy** · IBM via **IBM SkillsBuild**

· CCNA, CCNP, CyberOps & DevNet taken on-site with an instructor at **Duoc UC** . All verifiable on [Credly](#) ↗

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 GitHub

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