

Nicolas Velasquez Lopez

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SUMMARY

Mechatronics Engineer and Solutions Engineer. Leads technical discovery to understand architecture, requirements, business objectives, and success criteria, then turns those needs into demonstrations and solution paths that business and managerial audiences can decide on. At Huawei, designed cloud architectures for named enterprise accounts and delivered technical training and webinars on AI and Kubernetes to mixed technical and business audiences in Colombia and Ecuador. Teaching is a documented practice: co-founded a robotics and programming school (40+ students, ~80 classes), instructed the Colombian team on the educational CubeSat RASCube-1 (launched 2025), and taught robotics to teenagers.

PROFESSIONAL EXPERIENCE

Solutions Engineer — Truora · Bogotá, Colombia · Oct 2025–present

- Leads technical discovery with customers to understand architecture, requirements, business objectives, and success criteria.
- Designs and presents tailored demonstrations and proofs of concept with sales, product, and engineering.
- Runs AI-agent-assisted operations for pre-sales and pilots; uses HubSpot for ticket follow-up and built an automation for that workflow.

Named Accounts Cloud Solutions Architect — Huawei · Bogotá, Colombia · Jul 2024–Jul 2025

- Led technical discovery and end-to-end solution design for named enterprise accounts, trading off performance, availability, cost, scalability, and security — and explained those trade-offs to technical and business audiences.
- Architected a cloud migration for a large Colombian technology company.
- Delivered technical training and webinars on AI and Kubernetes for technical and business audiences in Colombia and Ecuador.

Cloud Solutions Architect Intern — Huawei · Bogotá, Colombia · Feb–Jul 2024 — Supported solution architects on customer communication, technical analysis, and proposal design. Earned HCIA Cloud Service and HCIA Artificial Intelligence.

Co-founder, Coordinator & Instructor — Lápiz Labs · Jul 2023–Feb 2024 — Robotics and programming school: 40+ students, ~80 classes, five instructors. Curriculum, instructor training, and competition prep. [write-up](#)

Scientific Instructor — Space Call (Asociación Astronáutica Colombiana) · Nov 2023–Feb 2024 — Mentored students at The English School in programming, electronics, mechanics, and Morse code for a board flown on the educational CubeSat RASCube-1 (seven countries; launched 2025). [write-up](#)

Robotics teacher & designer — Robótica for Kids · Apr–Jun 2023 — Classes for ages 13–17: robotics, electronics, simulation, programming, design, and 3D printing.

SELECTED PROJECTS

TurtleBot3 trajectory control (2023) — Lyapunov-based controller for a differential-drive robot, tuned in Gazebo and validated on the physical robot. ROS, Python, MATLAB/Simulink. [GitHub](#) · [demo](#) · [write-up](#)

SCARA & anthropomorphic manipulator interface (2022) — Forward and inverse kinematics for both morphologies behind one interface. **Robotics category champion, UMNG Engineering Week 2022.**

CNC Magia Roja (2024–) — Motion electronics, GRBL firmware, and laser integration of a CNC used in a family workshop. [write-up](#) · [demo](#)

SKILLS

Discovery & communication: technical discovery, explaining architecture and trade-offs to business and managerial audiences, demonstrations, proofs of concept, customer training.

Teaching: curriculum design, instructor training, webinars (AI, Kubernetes), robotics and programming instruction.

Solutions & systems: solution architecture, Huawei Cloud, Linux, Docker, Kubernetes, REST APIs, HubSpot.

Programming: Python (robot control and automation projects), C++ (academic and embedded projects), MATLAB/Simulink, Git. ROS 1; ROS 2 Jazzy in progress.

EDUCATION

Mechatronics Engineering — Universidad Militar Nueva Granada, 2019–2023. · **HCIP Cloud Service Solutions Architect** — Huawei, Mar 2025. · **HCIA Artificial Intelligence** — Huawei, May 2024.

COMPETITIONS & RECOGNITION

Robotics category champion, UMNG Engineering Week 2022 — SCARA and anthropomorphic manipulator kinematics interface. · **Senior champion**, UMNG Programming Olympics 2021. · **Judge**, World Robot Olympiad Colombia 2023.