Carolina Celeste Navarro Aldoradin

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linkedin.com/in/carolina-celeste-navarro-aldoradin | [Portfolio](#) | [Certificates](#)

Profile

Industrial Mechatronics graduate and Software Engineering student, with experience in IoT, automation, data analysis and 4.0 Industry projects. Featured for leading remote monitoring projects, industrial systems inverse engineering and process optimization. Results-oriented, with experience in Agile practices (sprint planning, Kanban boards) and Lean Six Sigma tools such as DMAIC (Define, Measure, Analyze, Improve, and Control) for root-cause analysis and process improvement.

Experience

YOUNGA Global & Deloitte (DTTL) – Future Leaders Mentorship Program
Mar 2025 – Dec 2025 | Virtual Modality
- Design and development an AI-powered platform that generates and personalizes resumes, optimizing job applications through content and design automation.
- Tools: JavaScript, React, Next.js, HTML, CSS, TailwindCSS, Supabase, pdfMake, Github, VSCode, node.js, Puter AI.

Ferreyros S.A. – Intern SENATI (Electronics Laboratory) – Management Division of Product Support
Jan 2025 – Jul 2025 | Lima, Peru
- Leader of the Hydraulic Bank data acquisition project through reverse engineering to 2 SCADAs with proprietary protocols. Analysis of industrial serial protocols, network analysis and non-invasive testing.
- Configuration of industrial monitoring devices (Monico mCore SDR) for reading more than 400 engine test variables through CDL (CAT Data Link) and CAN Bus (Controller Area Network) protocols.
- Co-leader of the Asset Location System project for the CRC with BLE AoA technology (Bluetooth Low Energy with Angle of Arrival location).
- Data processing and visualization of electrical events from ECM in operation using BigQuery and Looker Studio.
- Development of automatic report templates and test screens for converters and CCM machine.
- Preparation of reports and executive presentations.
- Financial project management: cost analysis, request for quotes, coordination with suppliers and preparation of business cases.

Ferreyros S.A. – Intern SENATI (Component Repair Center) - Management Division of Product Support

Ago 2024 – Jan 2025 | Lima, Perú

- Technical disassembly of engines, their electrical system, and cylinder heads, for C175, 3500 and C32 models under Caterpillar standards and applying safety regulations.
- Download data and reports from ECMs (Engine Control Module) with Electronic Technician (CAT ET)
- Experience in component reusability and enabling components.
- Record of technical observations.
- Compliance with Safety and Quality responsibilities in the workshop.
- Project Proposal for a Real-Time Location System (RTLS) for tools and instruments with RFID (Radio Frequency Identification).

Education

Peruvian University of Applied Sciences (UPC) – Software Engineering

Mar 2024 - Dic 2028 | Laureate Transforma Scholarship Holder | Upper fifth

Aspire Institute – Aspire Leaders Program

Ago 2025 - Sep 2025 | International Leadership Program with Harvard faculty

National Industrial Work Training Service (SENATI) –Industrial Mechatronics

Ago 2022 - Ago 2025 | Upper third | Innovation Project at Ferreyros

National University of Engineering (UNI) – Especialization Program

Dic 2024 - Mar 2025| Identification, Formulation and Evaluation of Investment Projects within the framework of the National System of Multiannual Programming and Investment Management

National University of Engineering (UNI) & United Nations - Academy of Leaders UNI– ONU

Ago 2023 – Ago 2024 | 3rd national place in sustainable development contest (Yachaylabs team) | Vice President of the Protocol Committee

Featured Projects

SENATI Innova – Finalist Project (2025)

Data acquisition of mechatronic module 4.0 in real time with Augmented Reality

- Development of an app in Unity connected to a Node-RED server via MQTT.
- Integration with Siemens PLC (S7 nodes) and sending data to ThingsBoard (dashboard and alarms) and Google Sheets (database).
- Acceleration of learning process for Senati students and preventive maintenance optimization of Mechatronics modules.

Real-Time Asset Location System (RTLS) – Ferreyros (2024–2025)
System design to reduce inventory time and asset loss
- RTLS system design with ESP32, BLE AoA, Wi-Fi and MQTT for tool traceability.
- Own hardware manufacturing: PCB design and housings for beacons and gateways.
- Data integration in Node-RED and BigQuery, with triangulation algorithms (x,y).
- Development of dashboard with interactive map in Node-RED for real-time visualization.
- Implementation of automatic alarms: perimeter exit and asset expiration with notification to technicians and maintenance.
- Inventory process time reduction by 75% and annual savings projections of more than 50k PEN.

UNI–ONU Leaders Academy (Yachaylabs) – 3rd national place (2024).
Proposal for the Implementation of Educational Software for Quality and Accessible Education in Peru (2025-2035)
- Recognized by the National Society of Industries for standing out as a SENATI student in an external competition.

Certifications and courses

Udemy | In progress
- Course "Preparation to CCNA Certification"

Cisco Networking Academy | In progress
- Course "Networking Basics"

Global Dealer Learning Caterpillar
- Course "AEL05 Data Links"
- Course "AEL03 Electronic Control Units (ECUs)"
- Course "FEL14 Introduction to Cat ET"
- Course "FEL13 Electrical Schematics and Symbols"
- Course "FEL12 Introduction to Product Technologies"
- Course "FEL11 Introduction to Monitoring Systems"
- Course "FEL10 Introduction to Electronic Control Systems"
- Course "FEL09 Starting System"
- Course "FEL08 Charging System"
- Course "FEL07 Magnetism"
- Course "FEL05 Wires and Connectors"

National University of Engineering (Peru)
- Course "Transformation and Data Analysis in PowerBI"

Macquarie University (Australia)
- Course "Innovation and emerging technology: Be disruptive"

University of California in Irvine, University of California, Irvine Division of Continuing Education
- Course "Work Smarter, Not Harder: Time Management for Personal & Professional Productivity"

Internacional University of La Rioja (Spain)
- Course "Viveros de Empleo"

IE Business School (Spain)
- Course "Learning How to Learn"

IBM SkillsBuild
- Course "Artificial Intelligence Fundamentals"
- Course "Introduction to Emerging Tech"

Volunteering and organizations

TinkuyHub (Programa ESCAPPATE) – Processes Coordinator
Jul 2025 – Presente | Lima, Perú
- Development of the Directory of Youth Organizations using HTML for the platform.
- Integration between the Moodle-based TinkuyHub platform and the Juntta platform, using HTTP POST requests and endpoints to automate account creation.
- Implementation of automatic translation of the platform into the Quechua language.
- Representation of Tinkuyhub at innovation and sustainability events.

OverPwnZ (Cibersecurity Community) – Board member
Nov 2025 – Present | Lima, Perú

ComSoc UPC – Telecommunications & RF Technical Leader
Ago 2025 – Dic 2025 | Lima, Perú
- Design, propose and plan academic and technical activities in the area of Telecommunications and Radiofrequency, aligned with the objectives of the chapter.
- Represent the chapter in IEEE initiatives and interuniversity activities related to telecommunications and emerging technologies.

Sinfonía por el Perú – Youth Choir
May 2018 – May 2025 | Lima, Perú
- Ópera Madame Butterfly with the Granda Festival
- Women's Day Column #8M
- Participation in the Austria Symphony Tour 2024
- Participation in the Sinfonía Chile 2023 Tour
- First member of the Composition Chair
- Participation in the Lucerne Music Festival 2019

Hard Skills

Languages & Scripting: Python, C++, JavaScript, Node.js, SQL, Bash/Shell Scripting, Google Apps Script, HTML, Typescript.
Frameworks & Web Development: React.js, Next.js, Node.js.
IoT & Embedded Systems: ESP32, Arduino, ESP-IDF, PlatformIO, BLE, RFID, NFC, MQTT, LoRaWAN, nRF, WiFi, I2C, SPI.
Protocols & Networks: TCP/IP, UDP, HTTP/HTTPS, REST, Modbus, MQTT, Ethernet, SSH.
Databases & BI: SQL, MySQL, SQL Server, Google BigQuery, Supabase, NoSQL, ETL, Looker Studio, Power BI, Power Query, AppSheet.
Robotics & Automation: Programación de robots KUKA (KRL)
CAD Design & Quick Prototyping: AutoCAD, Autodesk Inventor, EasyEDA, PCB Design, 3D Printing (FDM), PrusaSlicer.
Development tools & Analysis: Git, GitHub, Visual Studio Code (VSC), Node-RED, Docker, Wireshark, Cisco Packet Tracer, Vercel, OpenAI-API, Gradio, HuggingSpaces.
Project Management & Methodologies: Agile, Scrum, Kanban, DMAIC, Lean Six Sigma, Jira, ClickUp, Trello, Notion.
Mechanics & Electricity: CAT ET, Surface preparation of components, Safety and Quality, Disassembly of the CAT engine electrical system

Soft Skills

Multidisciplinary Teamwork, Collaboration
Coordination
Project Management, Planification, Time Management,
Analytical thinking, Problem solving
Creativity, Innovation,
Adaptability, Quick learning, Flexibility
Stakeholders Management, Strategic Networking

Languages

Spanish: Native
English: Advanced