

Alejandro Roa Aparicio

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PROFILE

- » Mechatronics Engineer and Software Engineer
- » Focus on robotics and applied artificial intelligence, from physical integration and computer vision to automation and scalable cloud solutions

EDUCATION

- 📅 Present **Systems Engineering**
Universidad EAN
📍 Bogotá, Colombia
» Degree Project: Robot Angel - Open Source Robotics IDE
- 📅 Present **Mechatronics Engineering**
Universidad EAN
📍 Bogotá, Colombia
- 📅 2021 **Technical High School Specialized in Mechatronics**
Instituto Técnico Industrial Francisco José De Caldas
📍 Bogotá, Colombia
» Technical training in Mechatronics

WORK EXPERIENCE

- 📅 Present **Research Intern**
Innovation and Transfer Management, Universidad EAN
📍 Bogotá, Colombia
» Developing an environmental monitoring system with real-time visualization and prediction for Universidad EAN's research management
- 📅 2026 **Junior Programmer**
WhaleDog
📍 Bogotá, Colombia
» Full stack development for Edgar Ruiz #54 Liberal Party senate campaign. Handled deployment, design, DevOps, frontend and backend for [edgarruiz.vote](#)
- 📅 2025 **Junior Programmer**
Freelancer
📍
» Developed a Linux simulation with Geolandspill for crude oil spill modeling for an oil company
- 📅 2025 **Assistant Teacher**
Fundación Nuevo Amanecer ESAL Chocó and Universidad EAN
📍 Chocó, Colombia
» Taught classes in the STEMChocó project, achieving the construction of a CANSAT with low-income girls
- 📅 2025 **University Tutor - Circuits**

📅 2025

Universidad EAN

📍 Bogotá, Colombia

» Provided tutoring and collaborated in directing class laboratories for the Circuits subject

University Tutor - Electronics

Universidad EAN

📍 Bogotá, Colombia

» Provided tutoring and collaborated in directing class laboratories for the Electronics subject

TECHNICAL SKILLS

- | | | |
|-------------|-----------------------|--------------------|
| ✔️ Robotics | ✔️ Web Development | ✔️ 3D Design |
| ✔️ Python | ✔️ Mobile Development | ✔️ Circuit Design |
| ✔️ C/C++ | ✔️ Computer Vision | ✔️ Prototyping |
| ✔️ ROS | ✔️ AI | ✔️ Cloud Computing |
| ✔️ Git | ✔️ Linux | ✔️ Docker |

FEATURED PROJECTS

- » **Corto Circuito - Science Outreach** Science outreach project where I share tips, explain concepts and projects, and seek to transmit my love for science and engineering with the aim of someday inspiring at least one person to find what they love and dedicate themselves to it, hoping that passion and flame is the same one I overflow with for this profession. 📧 @corto.circuitx
- » **Robot Angel - Open Source Robotics IDE** Systems engineering degree project with the goal of becoming the #1 robotics-dedicated IDE worldwide. 100% open source project to democratize robotics one dreamer at a time. 🌐 Website 📁 GitHub

OTHER PROJECTS AND PORTFOLIO

- » To see all my projects, competition robots, web development work, 3D designs, embedded systems and more, visit my complete portfolio:
- » 🌐 <https://alejandrora.engineer/>

LANGUAGES

Spanish (native)

English (fluent)

COMPETITIONS AND HACKATHONS

- » Throughout my career, I have participated in various competitions and hackathons that have challenged my technical skills and teamwork abilities. These experiences have been fundamental in my professional development, allowing me to apply my knowledge in real-world scenarios and learn from other talented professionals
- | | |
|---|--|
| ✔️ SostechPreneur 2025 Hackathon EAN | ✔️ Engineering Faculty Hackathon EAN University 2023 |
| ✔️ RHA International Robotics Battle 1L | ✔️ Engineering Faculty Hackathon EAN University 2024 |
| ✔️ CANSAT International Congress of Engineering and Automation 2024 | ✔️ EAN BOT 2025 |

BADGES

- » Professional certifications verified on Credly
- » 🌐 <https://www.credly.com/users/alejandro-roa-aparicio>