Nicolás Carminati

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EDUCATION

UNIVERSIDAD DE ALCALÁ (UAH) - *Alcalá de Henares, Spain* September 2022 – July 2026
Bachelor of Science in Computer Engineering. GPA [3.0]

Bachelor's Thesis: *Robotics Trajectory Planning and Control via Reinforcement Learning. (Grade: 9.0/10.0).*

- Designed and simulated autonomous mobile robot navigation strategies using Reinforcement Learning algorithms (RL) in ROS/ROS2 environments.

Academic Honors: Perception and Control, Real-Time Systems.

COLEGIO ASUNCIÓN CUESTABLANCA - *Madrid, Spain* March 2021 – May 2022
Spanish Baccalaureate (Bachillerato) - Science & Technology Specialization. **GPA [3.4]**

ESCUELA ORT - *Buenos Aires, Argentina* March 2016 – December 2020
Technical High School Diploma - Information and Communication Technologies (ICT) Specialization

EXPERIENCE

ROBESAFE RESEARCH GROUP (UAH) - *Alcalá de Henares, Spain* April 2026 – July 2026
Robotics & Autonomous Systems Research Intern

- Designed and implemented an autonomous racing navigation architecture using MATLAB, ROS2, and MVSim, detecting track waypoints via computer vision (ArUco markers) and generating optimized high-speed trajectories through Splines, with physical deployment on a TurtleBot 4 Lite.
- Trained a Deep Reinforcement Learning agent (DDPG) from scratch and benchmarked its performance against classical control algorithms (MPC, LQR) across metrics such as jerk, oscillation, and lap time.

SKILLS AND INTERESTS

TECHNICAL SKILLS

- **DevOps & Tools:** Ansible, Grafana, Git.
- **Networking & Systems:** Linux Administration (CLI), Networking fundamentals (TCP/IP, UDP, DNS, DHCP, SNMP), Wireshark, Cisco Packet Tracer.
- **Robotics, Control & AI:** ROS/ROS2, MATLAB, Computer Vision, Machine Learning.
- **Programming Languages:** Python, C++, Java, Ada, VHDL, SQL, HTML/CSS.

CERTIFICATIONS

- AWS Certified Cloud Practitioner (CLF-C02) - October/2026.

LANGUAGES

- Spanish: Native.
- English: Advanced C1 (British Council) - October/2026.
- German: Elementary A1.

INTERESTS

- Cloud Architecture, AI/ML, DevOps, Cybersecurity, SRE, Product Design.