(+34)616 625 708

Madrid, Spain

curro.ramosperez@gmail.com Personal site: curroramos.github.io

GitHub: curroramos LinkedIn: curro-ramos-perez

Francisco Ramos

Robotics and Automation Engineer



I have worked as a research intern at the Higher Technical School of Engineering (ETSI) in Seville at the prestigious Systems Engineering and Automation Department. I have also worked as a research intern at the Advanced Centre for Aerospace Technologies (CATEC) in Seville. I consider myself a self-taught person with a great capacity for learning. I am interested in Robotics, Control and Automation Systems, Electronics, Machine Learning, Connected Industry and Internet of Things.

SKILLS

Tools and Languages C, C++, Python (Tensorflow, Pytorch, OpenCV, Pandas, Pyspark), R (GGPlot2), SQL, Bash/Shell,

ROS, Matlab, Git, HTML, Docker

Quantitative Research
Communication

Control Systems, Robotics, Electronics, Automation, Machine Learning and Computer Vision

English (TOEFL iBT: 102 & Advanced CAE - C1), French (A2), Spanish (Native)

TECHNICAL EXPERIENCE

Robotics & Machine Learning Engineer

FEB 2022 — AUG 2022

Advanced Center for Aerospace Technologies - CATEC

Seville, Spain

- · Crop monitoring using photogrammetry obtained by HAPS (High Altitude Platform Station).
- Implementation of detect and avoid algorithms in unmaned aerial vehicles using Object Detection.
- Study and implementation of state-of-the-art object detection models with transformers, benchmark in embedded systems.
- Benchmark on real-time long-range aircraft detection for safe RPAS operations. DOI: 10.1007/978-3-031-21062-4 28

Research intern / Application of ML and DL techniques for the optimization of an EV charging station Systems Engineering and Automation Department US

SEP 2021 — JUL 2022

Seville, Spain

- Study, modeling, and implementation of a unified system simulator of an EV charging station with renewable support.
- Management optimization using time-series deep learning models to forecast charging load and energy production.
- Optimized Operation of an Electric Vehicle Charging Station with Photovoltaic Support and Vehicle-to-Grid Implementation. DOI:10.1007/978-3-031-10047-5_62

Engineer / Electric Powertrain & Electronic systems department.

 $\mathsf{SEP}\,2019-\mathsf{AUG}\,2021$

Seville, Spain

- High and low voltage electrical system of the electric motorbike.
- Design of Battery Management System (BMS), inverter, motor, charger and telemetry.

EDUCATION

MSc in Industrial Engineering, Control and Automation concentration, Universidad Politécnica de Madrid, UPM 2022 — (2024)

- Relevant project: Autonomous Unmanned Aerial Vehicle System: Drone for Autonomous Drone Racing Competition

BSc in Industrial Engineering, Control and Automation concentration, *Universidad de Sevilla*, *ETSI* 2018 — 2022

- Top 1%, Avg Spanish Grade:8.78/10, Cumulative GPA: 3.777, Major field GPA: 3.836
- Final degree project: "Charge demand and renewable generation forecasting with Deep Learning: application to electric vehicle station optimization." (Awarded with Honours)
- Other projects: Pan & Tilt servo system autonomously controlled using Facial, Hand and Color Detection

Additional Tranining Courses:

- TensorFlow Developer Specialization - Professional Certificate (4 courses), DeepLearning.Al	2022
- Introduction to the Internet of Things and Embedded Systems, <i>University of California, Irvine</i>	2020
- Deep Learning Specialization by Andrew NG (5 courses), DeepLearning.Al	2019-2021
Internship, Rockbrook International - Dublin, Ireland	2012

ACTIVITIES AND ACHIEVEMENTS

Prize for the Best Final Degree Project awarded by the Endesa Chair - XVIII Edition	2023
Player of the UPM School of Industrial Engineering soccer team	2022
Team manager in catering, Ulivo, Seville	2021 - 2022
Captain of the University football team of the School of Engineering of Seville	2018 - 2022
Collaboration grant from the ministry of education	2021
Volunteer, solidarity evenings and visiting disabled people.	2018 - 2022
Member of the teaching staff. Confirmation Catechist. Claret Seville School	2020 - 2021
Excellence Grants in Colegio Mayor Guadaira	2018
Football player (Captain) 1st provintial division <i>Cádiz</i>	2017 - 2018
Elemental Music Grade Instrument: Violin. Music Conservatory Rafael Taboada. Cádiz	2010