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Francisco Ramos

Robotics and Automation Engineer

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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	Python (Tensorflow, Pytorch, OpenCV, Pandas, Pyspark), R (GGPlot2), SQL, C, C++, Bash/Shell, ROS, Docker, Git, Matlab, HTML
Quantitative Research	Control Systems, Robotics, Electronics, Automation, Machine Learning and Computer Vision
Communication	English (TOEFL iBT: 102 - C1), French (A2), Spanish (Native)

TECHNICAL EXPERIENCE

Robotics & Machine Learning Engineer <i>Advanced Center for Aerospace Technologies - CATEC</i>	FEB 2022 — AUG 2022 <i>Seville, Spain</i>
<ul style="list-style-type: none">• Crop monitoring using photogrammetry obtained by HAPS (High Altitude Platform Station).• Implementation of detect and avoid algorithms in unmanned aerial vehicles using Object Detection.• Study and implementation of state-of-the-art object detection models with transformers, benchmark in embedded systems.	
Research intern / Application of ML and DL techniques for the optimization of an EV charging station <i>Systems Engineering and Automation Department US</i>	SEP 2021 — JUL 2022 <i>Seville, Spain</i>
<ul style="list-style-type: none">• 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.	
Engineer / Electric Powertrain & Electronic systems department. <i>US Racing</i>	SEP 2019 — AUG 2021 <i>Seville, Spain</i>
<ul style="list-style-type: none">• 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 , <i>Universidad Politécnica de Madrid, UPM</i>	2022 — (2024)
- Relevant project: Autonomous Unmanned Aerial Vehicle System: Drone for Autonomous Drone Racing Competition	
BSc in Industrial Engineering, Control and Automation concentration , <i>Universidad de Sevilla, ETSI</i>	2018 — 2022
- Top 1% 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 Training Courses :	
- TensorFlow Developer Specialization - Professional Certificate (4 courses), <i>DeepLearning.AI</i>	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), <i>DeepLearning.AI</i>	2019-2021
Internship , <i>Rockbrook International - Dublin, Ireland</i>	2012

ACTIVITIES AND ACHIEVEMENTS

Player of the UPM School of Industrial Engineering soccer team	2022
Team manager in catering, <i>Ulivo, Seville</i>	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. <i>Claret Seville School</i>	2020 — 2021
Excellence Grants in Colegio Mayor Guadaira	2018
Football player (Captain) 1st provincial division <i>Cádiz</i>	2017 — 2018
Elemental Music Grade Instrument: Violin. <i>Music Conservatory Rafael Taboada. Cádiz</i>	2010

PERSONAL SKILLS

Project management	Strong decision maker
Complex problem solver	Leadership
Entrepreneurial initiative	Innovative