José Andrés Millán Romera
Artificial Intelligence Researcher

Contact

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Profile

I am an experienced researcher with a passion for artificial intelligence and for finding the ways it can help us create a wealthy, happy and fair society. I take great interest in discovering and developing synergies between human and artificial intelligence and I am currently looking for the appropriate program that would allow me to dedicate to this field. I love designing and programming algorithms as well as doing fieldwork on real applications. I am a creative person who gets energized by learning and I am able to work well independently. In the search of constantly broadening my knowledge, I am eager to be part of an interdisciplinary group that develops the technology of tomorrow.

Skills

Technical

∴ Programming advanced: Python, C++, Swift, Matlab & Simulink
∴ Programming experienced: Julia, C, JavaScript, HTML, SQL, Problog
∴ Machine learning: Tensorflow, Keras, PyTorch. Data manipulation & analysis
∴ Amazon Web Services & Azure Cognitive Services
∴ Robot Operative System (ROS)
∴ App development & domotic technologies

Management & Personal

∴ Leadership
∴ Project management & SCRUM
∴ Creativity & problem solving
∴ Self-management & working independently
∴ Sociable & great people skills

Languages

∴ English – Full professional proficiency
∴ Spanish – Native or bilingual proficiency
∴ Italian – Full professional proficiency
∴ French – Limited working proficiency

Professional experience

2020 -Present
AI researcher & Robotics engineer ‖ 4i Intelligent Insights, Seville, Spain
As an AI researcher, I am the team leader in the study of knowledge representation and reasoning enhanced capabilities bioinspired in neuroscience. We develop a cooperative multi-agent reinforcement learning system communicated via attention. Currently working on the first publication and preliminary characterization experiments. As a robotics engineer, I am part of an international consortium for projects of Honda Research Institute. We implement and deploy robot-human interaction capabilities, including computer vision, natural language processing, and behavior control.

2017-2020
Robotics researcher ‖ University of Seville, Robotics, Vision & Control Group, Seville, Spain
Lead engineer in IDRON project. It consisted of the definition, research, implementation and integration of software and all hardware components of a drone with autonomous capabilities for exploration on confined spaces. Participation in SAFEDRONE and GAUSS European research projects for the improvement of Unmanned Aircraft Systems Traffic Management. I designed, developed and published ROS-MAGNA, a framework for the design, management and control of real cooperative missions of swarms of aerial robots. I used ROS-MAGNA in the research of machine learning algorithms for collision-free drone navigation.

Publications

∴ Millan-Romera, Jose A., et al. "ROS-MAGNA, a ROS-based framework for the definition and management of multi-UAS cooperative missions." *2019 International Conference on Unmanned Aircraft Systems (ICUAS)*. IEEE, 2019.
∴ Millan-Romera, Jose A., et al. "A UTM simulator based on ROS and Gazebo." *2019 Workshop on Research, Education and Development of Unmanned Aerial Systems (RED UAS)*. IEEE, 2019.
∴ Perez-Leon, Hector, et al. "An aerial robot path follower based on the 'carrot chasing' algorithm." *Iberian Robotics conference*. Springer, Cham, 2019.
∴ Castillejo-Calle, Alejandro, et al. "A multi-UAS system for the inspection of photovoltaic plants based on the ROS-MAGNA framework." *2019 Workshop on Research, Education and Development of Unmanned Aerial Systems (RED UAS)*. IEEE, 2019.

Education

2020-2021 ‖ Future Leaders MBA, ThePowerMBA

2016-2019 ‖ M.Sc. Industrial Engineering, University of Seville, Spain
Cum laude in Master Thesis

2015-2016 ‖ M.Sc. Development of Unmanned Air Systems, International University of Andalusia, Sevilla, Spain

2010-2016 ‖ B.Sc. Industrial Engineering, University of Seville, Spain

Additional Courses
∴ Introduction to Artificial Intelligence (Udacity)
∴ Introduction to Machine Learning (Coursera)
∴ Deep Learning (Udacity)
∴ Deep Reinforcement Learning Nanodegree (Udacity)

Other experience

2017-2018 ‖ Engineer ‖ Domonova, Seville, Spain
∴ Projects for home automation systems

2016 ‖ Research Assistant ‖ University of Parma, Department of Material Science, Parma, Italy
∴ Surface laser treatment on ceramic materials, Erasmus Traineeship

2015-2016 ‖ Design Engineer ‖ Isbitech, Seville, Spain
∴ 3D design and 3D printing of neuroimaging apparatus

2014-2015 ‖ Junior Engineer ‖ CATEC, Automation & Robotics Department, Seville, Spain
∴ Trajectories generation, collision avoidance and human cooperation on a 6-degree robotic arm. Point cloud treatment for gesture recognition. Use of ROS. Participation in the EuRoC challenge.

Extracurricular information

Born June 5th, 1992, in Ubeda, Andalucia, Spain
Driving license for car, motorbike; EU, category B and A2
Passionate about: piano, karate, parachuting
Happy to talk about: Psychology, Geopolitics
Volunteering: Red Cross, Charitas

References

Can be provided upon request