Yago Lizarribar Carrillo

PhD Student

PROFILE

I am currently a PhD Student at the IMDEA Networks Institute. I have worked in various fields of engineering, starting from Teleoperated Robotics, Autonomous Vehicles and Swarm Robotics. Now, I focus on IoT networks, Radio-Frequency sensing, Signal Processing, Software-Defined Radio and Localization.

EXPERIENCE

PhD Student, IMDEA Networks; Madrid, Spain — June 2019 - Present
- Research on localization systems with low-cost crowdsourced spectrum sensing networks. Self-localization of low-cost sensors with aircraft signals. Localization on 5G networks with OpenAirInterface. Development of the sensors of the Electrosense Network.

- Internships at armasuisse in 2020 and 2022 (3 months each)

Research Assistant, MIT Media Lab; Cambridge, US — September 2017 - December 2018
- Worked on Autonomous lightweight vehicles, developing SLAM techniques, Computer Vision applications (obstacle identification) and Human-Machine Interactions. Research on Swarm Robotics and its applications to city management.

J.L. Engineering S.L, San Sebastian, Spain — Jun 2016 - Aug 2016 & Jun 2017 - Aug 2017
- Development of industrial facilities, ranging from CAD design of buildings, environmental impact assessment and design of low-voltage electrical networks (20-1000 V)

German Aerospace Center (DLR), Munich, Germany — June 2015 - August 2015
- Research on Haptic device comparison in teleoperated force-feedback systems. Implementation of Machine-Learning methods to correlate electromyographic signals to exerted arm force.

EDUCATION

University of Carlos III, Madrid — MSc in Telematics Engineering, 2019-2020
- Coursework CS and Telecom applied to Computer Networking. Graduated with Honours.

University of Navarra, San Sebastian - MSc in Engineering Technologies, 2016-2018
- Continuation of BSc. Graduated with Honours.

University of Navarra, San Sebastian - BSc in Engineering Technologies, 2012-2016
- Coursework on Mechanical, Electrical and Electronics Engineering. Graduated with Honours.

SKILLS

○ LANGUAGES: Spanish (Native), Basque (Native), English (C2), French (A2), German (A2) .

○ PROGRAMMING: Python, MATLAB, C++, Java, Rust, Javascript, HTML/CSS.

○ FRAMEWORKS: SDR Stack (Soapy, UHD, RTL-SDR), Flask/FastAPI, PyTorch, Tensorflow, React, OpenCV, ROS.

○ SYSADMIN: Linux (Debian & RedHat-based distros), Docker.

○ TEACHING: University Lectures (Computer Networks) from 2021 to 2023.

AWARDS

○ NATIONAL EXCELLENCE AWARD, Spanish Government (2020) — 3rd place nationally

○ CITY ROBOTICS HACKATHON, MIT Media Lab (2018) — 1/30 place

○ ACADEMIC EXCELLENCE AWARD, Santander Bank (2017)