



Álvaro Zornoza Uña

Industrial Electronics, Robotics and Automation Engineering

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OVERVIEW

- My main areas of interest are robotics, drones, embedded systems, IoT, AI and computer vision.
- I consider myself a responsible, hard-working and organised person. I am always eager to learn new things. Extracurricular activities carried out during my bachelor's degree have provided me with good communication, teamwork and leadership skills.

WORK EXPERIENCE

R&D Engineer Intern

Siemens AG (Graz)

Mar 2019 - Sep 2019

- Internship at the Development House of the Digital Factory department.
- Writing master thesis in the framework of Predictive Maintenance.
- Firmware development for STM32 microcontrollers and automation projects for Simatic STEP 7-1500 with TIA Portal

Computer Vision Graduate Researcher

Polytechnic University of Catalonia - BarcelonaTech (Barcelona)

Oct 2018 - Feb 2019

- Participating in the European project Personal Online Dosimetry Using Computational Methods. [PODIUM](#) project is part of [CONCERT](#) European Joint Programme for the Integration of Radiation Protection Research under Horizon 2020.
- Integrating RGB-D cameras for 3-D human body localization and tracking (Visual Studio, C++, C#, OpenCV)

IoT Application Engineer and Consultant

[thethings.io](#) (Barcelona)

Apr 2018 - Oct 2018

- Integrating third-party services (APIs REST) with the platform (HTTP, CoAP & UDP and MQTT protocols).
- Prior knowledge of Web applications development (Angular, NodeJS and MongoDB)
- Supporting customers with the setup of IoT projects and programming of cloud-code scripts (NodeJS).
- Representing on behalf of the company for projects and meetings with other customers and institutions.

Intern

[thethings.io](#) (Barcelona)

Sep 2017 - Apr 2018

- Programming libraries for embedded-system (C++, Arduino, Python)
- Integrating services of Sigfox and other LPWAN technologies with the platform.
- Writing website content for both the blog and documentation of the platform.

Assistant Laboratory Technician

Kaunas University of Technology (Lithuania)

Feb 2017 - Jul 2017

- Internship at [FabLAB Kaunas](#) while an Erasmus + Exchange assisting for scientific research.
- Commissioning and maintenance of simulation equipment. Documentation and programming of DJI drones.

EDUCATION AND TRAINING

Master's Degree in Automatic Control and Robotics

Polytechnic University of Catalonia - BarcelonaTech (Spain)

Sep 2017 - Sep 2019

- 120 ECTS credits.
- Honors in Human Robot Interaction and Teleoperation.
- Master's thesis: Enabling fault prediction of electromechanical relays by incorporating accelerated life tests using Siemens SIMATIC safety controllers.

Bachelor's Degree in Industrial Electronics and Automation Engineering
Technical University of Madrid (Spain)

Sep 2013 - Jul 2017

- 240 ECTS credits. GPA: 7.1/10 (B).
- Honors in Physics I and Business Management.
- Outstanding (A+) grade in Bachelor's Thesis: [Design of a Drone Based Measurement System for GSM signals](#).

Bachelor's Degree in Electronics Engineering
Erasmus+ Exchange at Kaunas University of Technology (Lithuania)

Feb 2017 - Jul 2017

- Internship at the laboratory in [FabLAB Kaunas](#).
- Writing the Bachelor's thesis and attending several elective courses.

CONFERENCES, COURSES AND SEMINARS

Digital Signal and Image Processing with MATLAB
Czech Technical University in Prague (Czech Republic)

Nov 2016

Organisational Behaviour
Technical University of Madrid (Spain)

Sep 2015

- Seminar on Organisational Behaviour for mentorship training.
- Learning communication and motivation skills and how to make efficient presentations.

LANGUAGES

Spanish

Native speaker

English

Professional working proficiency. C1 - British Council Aptis English Test

German

Elementary proficiency. A1 - University of Graz (Austria)

IT SKILLS

Programming languages

C, C++, C#, Python, MATLAB & Simulink, VHDL (FPGA), NodeJS, GScript, API REST and T_EX

Robotics framework

ROS

PLC programming

Siemens S7-1500 and S7-1200. TIA Portal

Electronic circuit simulator and PCB design

Eagle, PSpice and OrCAD

CAD programs

AutoCAD and Inventor

Office automation

MS Office and G Suite

OTHER RELEVANT EXPERIENCE/SKILLS

- Coordinator at ESN UPC (Barcelona). Organizing events and activities for new incoming students.
- Basketball Referee for Basketball Association of Madrid. Officiating basketball games during five seasons. Capabilities such as empathy, conflict resolution and teamwork under pressure.
- Secretary of an University Association: Mountain and Leisure Activities Club of UPM (Madrid). Institutional relations, corporate image and groups management.
- Mentoring program for new students at University. Providing experience, socialization and personal support to facilitate a good starting experience and beyond.
- Volunteer experience in several sports events, such as Euroleague Final Four at Madrid (2015) and King's Cup of Basketball at Malaga (2014).
- Driver's license (B) and own car.