



Álvaro Zornoza Uña

Industrial Electronics, Robotics and Automation Engineering

Madrid (Spain)

+34 693 803 083

alvaro.zornoza@gmail.com

[in](#) Álvaro Zornoza Uña

[@](#) alvarozornoza

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 the 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 multiple 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.
- Honours in Human Robot Interaction and Teleoperation.
- Erasmus+ Exchange at Graz University of Technology (Austria) during last semester.

- 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).
- Honours in Physics I and Business Management.
- Erasmus+ Exchange at Kaunas University of Technology (Lithuania) during last semester.
- Outstanding (A+) grade in Bachelor's Thesis: [Design of a Drone Based Measurement System for GSM signals.](#)

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)

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

HONORS-AWARDS

- Winner of the hackathon [SEAT DisrUp: Hacking the Future of Mobility](#)

April 2018

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.