



# Antonio Liñán

SENIOR TECHNICAL MANAGER ·

Karl-Marx-Allee 124, Berlin, 10243, Germany

✉ antonio.lignan@gmail.com | 🏠 alignan.github.io | 📷 alignan | 📺 antonio-liñán-colina-73566229

*I'm an Engineering Manager who leads from the back: promoting leadership, accountability and responsibility, by enabling a positive working environment with trust and transparency as pillars, to develop talented professionals into highly engaged and effective engineering teams.*

## Skills

<b>Experience developing people</b>	Coaching, one-to-one's, PDP (personal development plan), competence centers and team building
<b>Team and Project Management</b>	Agile (scrum, kanban and others), waterfall, transparent and documented processes
<b>Programming</b>	Python, C, Bash
<b>Technologies and Protocols</b>	MQTT(s), CoAP(s), 6LoWPAN, Zigbee, BACnet, Siemens S7, Modbus-RTU/TCP, Sigfox, IO-Link
<b>Operating Systems</b>	Yocto, Buildroot, OpenWRT, Windows, Linux, Contiki-OS, TinyOS, RIOT
<b>Tools and Resources</b>	Jenkins CI, Travis CI, Vagrant, Docker
<b>Languages</b>	Spanish (native), English (fluent)
<b>I worked before with...</b>	Dell, Advantech, Siemens, Beaglebone, Raspberry Pi, Wago, IFM, SICK, Turck, Arduino, (...)

## Experience

RELAYR GMBH, JAN. 2017 - PRESENT

Berlin, Germany

SENIOR MANAGER OF SOLUTIONS ENGINEERING (EUROPE AND US)

Jan. 2018 - PRESENT

- Developed and managed two highly talented and motivated engineering teams (in Berlin and Chicago, with diverse skill sets, backgrounds, and nationalities).
- Actively recruited and retained talent for my teams, by promoting transparency, trust and a positive working environment.
- Managed and coordinated the teams in the Solutions Engineering department (System Integration and Development) using Agile methodologies and best industry practices (with a touch of common sense), to ensure visibility and alignment with business priorities, enabling the team to identify future blockers and other issues in advance.
- Designed and developed in-house tools and internal products to improve testing, development and reuse of our reference solutions, towards maximizing our resources and increasingly improving their quality and documentation, in a fully automated way (Jenkins CI-based, packaging for deployment).
- Supported the Sales and Professional Services organizations, reporting directly to the Global Director of Professional Services and Delivery.
- Orchestrated complex projects, partners and vendors.
- Evaluated projects and technical documentation, analyzing requirements and specifications towards defining the solution and proposing different integration and development strategies, providing figures for the required effort, cost and timing.
- Responsible for the planning and execution of projects, including syncing with the product Owners and other stakeholders, to ensure requirements and blockers are addressed.
- Led the design and development of the Hardware and Edge components of an Elevator monitoring product, developed by relayr and an industrial partner. The solution features an Embedded System, coupled with industrial sensors and LTE as up-link interface, and it is intended to monitor the elevator normal operation, and trigger alerts whenever an anomaly leading to a future maintenance has been detected. I was responsible of the Edge software architecture, and technical coordination of the development teams of relayr and their industrial partner.
- Managed all the stages of outsourcing processes, including scouting prospect partners and contractors, crafting Request for Pricing (RFP) documentation, reviewing pricing and technical proposals, and defining the Statement of Work (SoW) and Acceptance Criteria to finally review and approve their deliverables.

## TEAM LEAD OF SOLUTIONS ENGINEERING (EUROPE)

Jan. 2017 - Dec. 2017

- Designed and implemented a solution to retrofit a blister packaging line for a pharmaceutical manufacturer, integrating different industrial sensors (over Modbus-RTU and other protocols) using a custom mounting bracket, and aggregating the data in the cloud for analytics evaluation.
- Managed the development and industrialization of a hardware-based product, to be commercialized in the Singapore market by a major appliances manufacturer. The device monitors the operation of different home appliances using built-in sensors, and interacting with the cloud and a mobile application. I was directly engaged in the hardware development with an external contractor, end-to-end and acceptance QA testing, and firmware development.
- Designed and implemented a solution to retrofit a one-flow manufacturing line for an Industrial Customer in the Automotive sector, modeling the machines and production line operation, to identify the productions bottleneck, downtimes causes and Overall Equipment Effectiveness (OEE) towards maximizing the production. The solution included integrating PLCs (S7-300 and S7-1200), installing industrial sensors and aggregating data over Modbus-TCP in an edge architecture. My team developed a local rules engine framework to process the raw data and created a digital twin of the production line, running in the Smart Manufacturing Dashboard of relayr.
- Built a development and evaluation framework for internal training purposes, integrating several technologies and protocols such as OPC-UA, Modbus (TCP/IP and RTU), EtherNet/IP, Step 7 (S7), ProfiNet and LoRa. The framework included several PLC (WAGO, Siemens), Gateways (Advantech, Dell, Cisco) and industrial sensors (IFM, Sick, Bosch).
- Developed protocol adapters for CoAP/CoAPS integration over MQTT/HTTPS, using a proxy-like implementation at the edge.

## ZOLERTIA S.L (PREVIOUSLY ADVANCARE S.L), SEP. 2010 - JAN.2017)

## Zolertia S.L

Barcelona, Spain

## CTO - PRODUCT MANAGER

Jan. 2015 - Jan. 2017

- Managed the Hardware and Firmware development team, using Agile methodologies adapted to hardware manufacturing, and engaged directly with the production manager and external contractors, to ensure end-to-end delivering from design to industrialization and manufacturing.
- Managed the company's product portfolio and road map, including feature management, support and cost optimization.
- Designed and developed a lighting solution for an industrial customer in Germany. The Hardware solution (CE certified) was retrofitted to the customer existing lighting product and featured lighting control over DALI and 0-10VDC. The solution was implemented on 6LoWPAN (868MHz) by a third-party partner.
- Technical Lead in the RERUM (REliable, Resilient and secURE IoT for sMART city applications) FP7 European project. I was responsible for the design and development of the low-power sensing modules deployed in Heraklion (Greece) and Tarragona (Spain), and its low-level firmware. More information at: <https://ict-rerum.eu>
- Ported the company products (MSP430 and Cortex-M3 based) to Open Source Operating Systems (Contiki OS, RIOT OS and TinyOS). I was the main platform maintainer for these Operating Systems.
- Gave several technical workshops and presentations in different countries and events, such as IEEE-sponsored conferences, hackathons, trainings and other evangelist activities.
- Actively documented product information such as technical guides, white papers, data-sheets and erratas.

## Advancare S.L

Barcelona, Spain

## LEAD FIRMWARE DEVELOPER

Sept. 2010 - Dec. 2014

- Developed solutions integrated to the following platforms: Node-RED, Sentilo, Ubidots, Azure, The Things.io, Glue.Things, Xively, relayr, AWS and IBM Bluemix.
- Designed and developed a solution to monitor solar power plants as a white-label product for a German customer. The solution was a battery-powered wireless Modbus-RTU replacement over 6LoWPAN (868MHz/915MHz) for operation in the European, American and Indian market. I was responsible for the Firmware Development, SCADA integration and hardware compliance certification for all of the targeted markets.
- Designed and implemented Firmware and Hardware solutions for in-house products and external consulting projects.
- Developed low-level drivers for commercial and custom made sensors and hardware platforms, porting and implementing network protocols (Zigbee, IEEE 802.15.4, 6LoWPAN), and low-power applications for long-term unattended operation.
- Low-level peripheral driver development based on bit-bang, I2C, SPI, RS232/485 and 1-wire protocols.
- Created and maintained the technical Wiki page of the company.

## OTHER EXPERIENCES

## Tecnocom Colombia - Telefónica Telecom

Bogotá, Colombia

## NOC ENGINEER (LEVEL 2)

Jun. 2009 - Dec. 2009

- Handled and resolved technical incidences remotely (network operation control center).
- Managed external contractors working on-site.
- Managed customer incidents according to Service Level Agreements (SLA).

## Education

## Universidad de Los Andes

Bogotá, Colombia

## MSC. IN ELECTRONIC AND COMPUTER SCIENCE

2009

- Research topic: Wireless Sensor Networks

## Pontificia Universidad Javeriana

SPECIALIZATION IN FINANCIAL ACCOUNTING

- Final project derived into business spin-off

Bogotá, Colombia

2006

## Universidad Tecnológica de Bolívar

B.S. IN ELECTRONIC ENGINEERING

- Major degree in Telecommunications

Cartagena, Colombia

2005

## Extracurricular Activity

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### PLC Programming Basics to Advanced Siemens S7-1200

MEPI.PL (VIA UDEMY.COM)

- Siemens S7 programing course focused on the S7-1200 model

On-line

2018

### Become a Professional Python Programmer

STONE RIVER ELEARNING (VIA UDEMY.COM)

- Python refresher course with focus on back-end development

On-line

2018

### Learn JIRA with real-world examples (+Confluence bonus)

KOSH SARKAR (VIA UDEMY.COM)

- JIRA concepts, boards, reporting, filters and rules

On-line

2017

### AWS Concepts & AWS Essentials

LINUX ACADEMY (VIA UDEMY.COM)

- Introduction to AWS modules and concepts

On-line

2017

### Learn to program: crafting quality code (Python)

TORONTO UNIVERSITY (VIA COURSEARA.ORG)

- Improve quality, testing and readability of code

On-line

2013

### An Introduction to Interactive Programming with Python

RICE UNIVERSITY (VIA COURSEARA.ORG)

- Python basics applied to video game design

On-line

2012

### C/C++ Programming

SERVICIO NACIONAL DE APRENDIZAJE )SENA)

- C/C++ intermediate level course

Cartagena, Colombia

2008