

# Ángel Longueira-Romero

## Education

- 2019–2022 **PhD in Industrial Cybersecurity**, *Faculty of Engineering*, Mondragon University, Metric-Based Cybersecurity Evaluation Methodology for Industrial Embedded Systems.  
Specialization in:
- Cybersecurity Evaluation Standards.
  - Vulnerability analysis.
  - Cybersecurity measurement.
- 2017–2019 **Master's degree in Automation Engineering and Industrial Informatics**, *Gijón Polytechnic School of Engineering*, University of Oviedo, Specialised in Optical Techniques for Industrial Inspection.  
Other Activities:
- Class President.
- 2012–2017 **Bachelor's degree in Industrial Electronics and Automation Engineering**, *Gijón Polytechnic School of Engineering*, University of Oviedo, Specialised in Industrial Robotics.  
Other Activities:
- MENTOR Programme. Providing help to new Erasmus students in the campus.
  - Member of the self-evaluation committee of the Industrial Electronics and Automation Engineering degree.
  - Tandem language exchange programme of the University of Oviedo.

## Academic Dissertations

- 2019–2022 **Ph.D. Thesis**, *Mondragon University*, Arrasate, Metric-Based Cybersecurity Evaluation Methodology for Industrial Embedded Systems.
- 2018–2019 **Master's Thesis**, *IKERLAN*, Arrasate, Design and Implementation of a PKI Infrastructure with Automatic Reenrolment of Certificates for Industrial Embedded Systems.  
With Honors
- 2017 **Undergraduate Thesis**, *Thermal machinery and engines team. Department of Energy*, Gijón, Design of a temperature regulation system for a Stirling engine heater.  
With Honors

## Training

- 2018 **IEC 61131 Edu Net Certificate**, *Automation technology in theory and practice according to IEC 61131*.
- 2023 **TEEPwn - Raelize Certificate**, *Trusted Executions Environments based on TrustZone*.
- 2024 **Cybersecurity in the Electric Sector - CCI**, *Design, Operation and Maintenance of cybersecurity* - .

## Experience

- 2023–Present **Industrial Cybersecurity Researcher**, *Tecnalia*, Derio (Spain).

- 2022–2023 **Industrial Cybersecurity Researcher**, *IKERLAN*, Arrasate (Spain).
- 2019–2022 **PhD Candidate**, *IKERLAN*, Arrasate (Spain).
- 2018–2019 **Industrial Cybersecurity Intern**, *IKERLAN*, Arrasate (Spain), Worked at the Industrial Cybersecurity Team deploying a PKI with automatic reenrolment using SCEP, EST and OCSP for embedded devices with two HSMs.
- 2017–2018 **Amplification Equipment Repair Apprentice**, *Ortodoxo Amplification (Now: Bell Tone Vintage)*, Gijón, Worked with Marco Fernández designing, building and repairing vacuum tube and solid state musical equipment, and developing ad hoc tools.
- 2016–2017 **Mentoring and Tutoring**, Private lessons of industrial technology, mathematics, physics, chemistry, technical drawing and music to high school students.

## Technical Skills

OSs	Windows, GNU/Linux.
Programming	C, C++, Python, assembly.
Databases	PostgreSQL, MySQL.
Cloud	AWS.
Software	MatLab, R, Altium.
Hardware	FPGAs, Microcontrollers, PCB design.
Automation	ROS, UNITY, CODESYS, TIA Portal
Standards	ISO 9001, ISO 27005, ISA/IEC 62443, Common Criteria, SAE J3061.
Methodologies	NIST 800 Serie Reports, OWASP, OSSTMM, MAGERIT, STRIDE
Data Analysis	Machine Learning, Computer vision, Data Processing, Data Visualisation.
Cybersecurity	Cryptography, Public Key Infrastructure (PKI), Risk Analysis, Threat Modelling.
TEE	ARM TrustZone, OPTEE, Intel SGX.
Embedded	YOCTO, TPM.
Protocols	SCEP, EST, OCSP.
Other	Microsoft Office, L <sup>A</sup> T <sub>E</sub> X.

## Languages

Spanish	<b>Native</b>	
English	<b>Fluent</b>	
Portuguese	<b>Intermediate</b>	<i>Con conversationally fluent</i>
Basque	<b>Intermediate</b>	<i>Con conversationally fluent</i>
SerboCroatian	<b>Intermediate</b>	<i>Currently assisting to lessons</i>
German	<b>Basic</b>	<i>Basic words and phrases only</i>
French	<b>Basic</b>	<i>Basic words and phrases only</i>

## Transferable Skills

- Teamwork
- Written and verbal communication
- Fast learner and proactive problem solving
- Self management
- Research and analytical skills

## Interests

- 3D design with Fusion 360 (Autodesk)
- Arduino projects
- Language learning
- Travelling
- 3D printing (Simplify3D and Cura)
- Raspberry projects
- CrossFit and Bike
- Music (Electric Bass and Oboe)

## Other Information

- Willing to travel
- Driving license