

 <p>Jorge David Iranzo Bartolomé</p>		
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Languages

Spanish native, English advanced level (IBT TOEFL 113), Korean advanced level (TOPIK 5).

Work Experience

APRIL 2015 – FEBRUARY 2016

Engineer for the Production and Quality Control Departments (Intern)/ Libelium SL., Zaragoza (Spain)

- Manufacture and assembly of IoT devices.
- Devices configuration.
- Quality assurance processes on manufactures orders.
- Research for improving electronics and communications software and hardware.
- Develop projects for sensors integration.
- Develop software projects for customers

APRIL 2016 – AUGUST 2016

Junior Programmer (Intern)/ Deloitte, Zaragoza (Spain)

- 1-month adaptation course of Java, Apex and Salesforce.
- Analysis and development of new functionalities and maintenance in Salesforce. Development of REST Web services in Salesforce: Callouts and web services.
- Salesforce based data integration with ETL tools: Informatica Cloud. Our team built several interfaces to guarantee integration and quality of data in our TOYOTA client servers.
- Experience on incident resolution
- Writing technical documents in English and Spanish.

OCTOBER 2014 – APRIL 2015

Math tutor/ Zaragoza (Spain)

Private math tutor for a high school student. Two classes per week, one hour each.

Research Related Work Experience

DECEMBER 2017 – APRIL 2021

Electrical and Computer Engineer Researcher (Researcher number: 11784474)/

Sungkyunkwan University, Suwon (South Korea)

- Research project: “Research to develop a non-visual artistic information delivery interface for the visually impaired people and expand the right to cultural enjoyment.” / Science Technology and Humanity Converging Research Program of the National Research Foundation of Korea
- Research Number: 2018M3C1B6061353
- Duty: Design and development of interfaces and devices for the visually impaired people
 - HW/SW design, assembly and development (python, C++, Node.js, Samsung Bixby Keras)
 - Embedded systems development (OdroidXU4 + Linux, Arduino, ARM Mbed)
 - Design and hosting of user tests (tests and surveys)
 - Test and surveys data analysis and writing of manuscripts in English.
 - Device transportation to exhibition venues, installation and maintenance during exhibitions

Education

SEPTEMBER 2016 – AUGUST 2019

Granted the Korean Government Scholarship for graduate students

- 1 year of Korean studies + 2 years of Master degree.

SEPTEMBER 2019 – PRESENT

PhD’s Degree in Electrical and Computer Engineering / Sungkyunkwan University, Suwon (South Korea)

SEPTEMBER 2017 – JULY 2019

Master’s Degree in Electrical and Computer Engineering / Sungkyunkwan University, Suwon (South Korea)

GPA 4.37/4.5

- Degree dissertation: " A Voice-Touch Controlled Multimodal System for the Visually Impaired People to Improve Art Appreciation".

SEPTEMBER 2014 – AUGUST 2015

Bachelor’s Degree in Electrical and Computer Engineering (1 year Exchange Student) / Oklahoma University, Norman (United States)

SEPTEMBER 2008 – AUGUST 2016

Bachelor’s Degree in Industrial Engineering (Specialization in Electronics, 5-year degree) University of Zaragoza, Zaragoza (Spain)

Grade 7.1/10

- Degree dissertation: "Design on a power inverter for an electronic system for cancer treatment through irreversible electroporation".
- Exchange student for 2 semesters in Oklahoma University.

Research Publications

Title	Venue	Author/Coauthor
Exploring Thermal Interaction for Visual Art Color Appreciation for the Visually Impaired People	2020 International Conference on Electronics, Information, and Communication (ICEIC 2020)	Author
A Tactile Temperature Display Platform Incorporating Peltier Device and Graphene Film	2020 한국융합학회 ICCT2020 국제학술대회	Coauthor
Accessible Visual Artworks for Blind and Visually Impaired People: Comparing a Multimodal Approach with Tactile Graphics	Electronics 2021 (https://www.mdpi.com/journal/electronics)	Coauthor
ArtTouch: Multi-sensory Visual Art Experience Exhibition for People with Visual Impairment	Journal of Korean Society of Exhibition Design Studies. 17	Coauthor
Thermal Interaction for Improving Tactile Artwork Depth and Color-Depth Appreciation for Visually Impaired People.	Electronics 2020 (https://www.mdpi.com/journal/electronics)	Author
Tactile colour pictogram to improve artwork appreciation of people with visual impairments	Color Research & Application 2020 (https://onlinelibrary.wiley.com/journal/15206378)	Coauthor
Color Information Transfer Multi-modal Interface Concept Design for People with Visually Impairment to Appreciate Works of Art - Focused on the Case of "Blind-Touch", a Reproduction Art for Blind.	Design Works. 2. 44-58.	Coauthor
Jido: A Conversational Tactile Map for Blind People	The 21st International ACM SIGACCESS Conference	Coauthor
Exploring Art with a Voice Controlled Multimodal Guide for Blind People	TEI '19: Proceedings of the Thirteenth International Conference on Tangible, Embedded, and Embodied Interaction	Author
An Interactive Multimodal Guide to Improve Art Accessibility for Blind People	the 20th International ACM SIGACCESS Conference	Coauthor
Multi-sensory Color Expression With Sound and Temperature in Visual Arts Appreciation for People With Visual Impairment.	Electronics 20202(https://www.mdpi.com/journal/electronics)	Author

Awards

SEPTEMBER 16, 2018

Solving City Problems Seoul IoT Hackaton / Seoul Industry Development Institute

- Third place

APRIL 24, 2019

NUGU Play Development Contest / SK Telecom

- Second place
- Prize: 5.000.000 Wons (5.000\$).

JUNE 02, 2019

Art Hackaton: Intelligence Data for Shows and Performances / Art Managementu4 Support Center

- Second place.

MAY 01, 2020

Seoul Hardware Hackaton / Seoul Industry Development Institute

- First place.

Courses

MAY 2020 – JUNE 2020

Korea Immigration and Integration Program Level 5 course / Online Classes

- Course about Korean culture and language by the Ministry of Justice of Korea.
- Completion of the course and passed the exam for Long-Term Residency (79/100 points).

SEPTEMBER 2016 - JULY 2017

Korean language course / Dongseo University, Busan (South Korea)

Technical Experience

- **Front-end programming: Vanilla Javascript, React, CSS, HTML.**
- **Back-end programming: Node.js, Express.**
- Programming: Python, Android, Java, Matlab, C++.
- Computing: Linux, Odroid, Raspberry-Pi, Arduino.
- ETL Tools: Informatica Cloud.
- CRM Software: Salesforce.
- Machine Learning and Deep Learning: Scikit-Learn, Keras, Tensor-Flow.
- Electronic Circuits: PSpice, LTspice, Eagle, Modelsim.
- Energetic Optimization Software: HOMER.
- Structures: ANSYS, ABAQUS.
- Knowledge of image edition programs (GIMP)
- Knowledge of sound production (Reaper)
- Knowledge of music notation programs (Sibelius, MuseScore)