



# Jonnathan Santiago Berrezueta Guzman

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## WORK EXPERIENCE

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[ 01/12/2021 – Current ]

### Associated Researcher

#### *Technical University of Munich*

**City:** Heilbronn | **Country:** Germany

- Researching in Software Engineering and Robotic Assistants in Interactive Learning Environments.
- Publishing research papers in journals and conferences
- Supporting teaching activities of the courses
  - Introduction to Informatics
  - Fundamentals of Programming
  - Introduction to Software Engineering.
- Supervision of BSc and MSc thesis
- Developer of [Artemis](#) (Learning platform for Interactive Learning).
- Organizing Conferences and Symposiums
  - LACLO 2023
  - TICEC 2023
  - DSICT 2022

[ 01/08/2019 – 30/11/2021 ]

### Researcher

#### *CEDIA*

**City:** Cuenca | **Country:** Ecuador

- Coordination of the IoT and Smart Cities working group.
- Coordination of the CEPRA projects:
  - AI applied to support and analyze motor disorders.
  - Multi-User Immersive Technologies aimed at Synergic Teaching-Learning Systems.
  - Collaborative aerial manipulators for cargo handling.
- Editor for academic books collection of CEDIA EDITORIAL.
- Organizer and Proceedings chair of the Information and Communication Technologies Conference (TICEC)

## EDUCATION AND TRAINING

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[ 01/09/2019 – 16/06/2022 ]

### Doctor on Systems Engineering

*Universidad Politécnica de Madrid* | <https://www.upm.es/>

**City:** Madrid | **Country:** Spain | **Field(s) of study:** Robotic Assistance | **Final grade:** Cum Laude | **Thesis:** Ubiquitous childhood ADHD therapies based on smart-environment solutions

**Link:** <https://oa.upm.es/71647/>

My thesis project was awarded the mention of "Matricula de Honor" getting a grade of 10/10 and Cum Laude recognition.

Acquired skills:

- Hardware and software development of Robotic Assistants and IoT environments
- Researcher in IoTs and eHealth environment
- Writing, publication and presentation of several papers (journal and conferences)

[ 01/09/2011 – 09/03/2017 ]

### **Electronic Engineering**

**Universidad Politécnica Salesiana** <https://www.ups.edu.ec/>

**City:** Cuenca | **Country:** Ecuador | **Field(s) of study:** Electronic Engineering | **Final grade:** 9,2/10 | **Thesis:** A Didactic Transmitter to Support the Communication and Learning Process of Children with Cerebral Palsy

**Link:** <https://doi.org/10.1051/mateconf/20164205004>

The thesis project was published as a scientific article and presented at the 3rd International Conference on Control, Mechatronics and Automation (ICCMA 2015) (**DOI:** [10.1051/mateconf/20164205004](https://doi.org/10.1051/mateconf/20164205004)).

Acquired skills:

- Electrical engineering technical and theoretical skills
- Project designing and planning.
- Applied Electronics
- Scientific English for academic publication

[ 01/09/2018 – 12/07/2019 ]

### **Master on Internet of Things**

**Universidad Politécnica de Madrid** <https://www.upm.es/>

**City:** Madrid | **Country:** Spain | **Field(s) of study:** Internet of Things | **Final grade:** Matricula de Honor 10/10 | **Thesis:** Smart-Home Environment to Support Homework Activities for Children

**Link:** <https://doi.org/10.1109/ACCESS.2020.3020734>

My thesis project was awarded with the mention of "Matricula de Honor" getting a grade of 10/10 and published as a scientific article in the Journal (**DOI:** [10.1109/ACCESS.2020.3020734](https://doi.org/10.1109/ACCESS.2020.3020734)).

Acquired skills:

- Robotic Assistance: Design and development
- Research and development of IoT projects
- Cloud Computing applied in IoT
- Cyber Security, Data Science & Artificial Intelligence applied to Azure, AWS, and Firebase IoT platforms.

## **LANGUAGE SKILLS**

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**Mother tongue(s):** Spanish

**Other language(s):**

### **English**

**LISTENING C2 READING C2 WRITING C2**

**SPOKEN PRODUCTION C2 SPOKEN INTERACTION C2**

### **German**

**LISTENING A2 READING B1 WRITING B1**

**SPOKEN PRODUCTION A2 SPOKEN INTERACTION A2**

## DIGITAL SKILLS

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### My Digital Skills

Programming skills | Numerical Simulations | Probability and Statistics | Working on interdisciplinary projects | Programming robots | Team work skills

## PUBLICATIONS

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### Journal Publications

- [Future of ADHD Care: Evaluating the Efficacy of ChatGPT in Therapy Enhancement](#)
- [Robotic technologies in ADHD care: Literature review](#)
- [Assessment of a robotic assistant for supporting homework activities of children with ADHD](#)
- [Smart-home environment to support homework activities for children](#)

### Conference publications

1. [Ubiquitous Mobile Application for Conducting Occupational Therapy in Children with ADHD](#)
2. [Robotic assistant for the teaching in trauma accidents prevention in children of initial age](#)
3. [ChatGPT-4 as a Tool for Reviewing Academic Books in Spanish](#)
4. [Plagiarism Detection and its Effect on the Learning Outcomes](#)
5. [Recommendations to create programming exercises to overcome ChatGPT](#)
6. [Introduction to Programming using Interactive Learning](#)
7. [A user-centered methodology approach for the development of robotic assistants for pervasive unsupervised occupational therapy](#)
8. [Artificial Vision Algorithm for Behavior Recognition in Children with ADHD in a Smart Home Environment](#)
9. [Design, Development and Assessment of a Multipurpose Robotic Assistant in the Field of Cognitive Therapy](#)
10. [Ubiquitous childhood ADHD therapies based on smart-environment solutions](#)
11. [Creation of an intelligent system to support the therapy process in children with ADHD](#)
12. [Development of a home accompaniment system providing homework assistance for children with ADHD](#)
13. [IoT as an alternative way to improve the telemedicine methods against COVID-19 in vulnerable zones](#)
14. [Embedded system as a third version of a didactic transmitter of needs that provides a way of communication to children with cerebral palsy of the spastic type](#)
15. [How is the quality of life of patients with cerebral palsy improved? Qualitative and quantitative evaluation of a communication and learning assistance system based on ICTs](#)
16. [A didactic transmitter to support the communication and learning process of children with cerebral palsy](#)
17. [Digital trainer for the development of the fine motor ability in children with cerebral palsy](#)

## Proceedings (Editor)

1. [Information and Communication Technologies: 11th Ecuadorian Conference, TICEC 2023, Cuenca, Ecuador, October 18–20, 2023, Proceedings](#)
2. [Proceedings of the 18th Latin American Conference on Learning Technologies \(LACLO 2023\)](#)
3. [Doctoral Symposium on Information and Communication Technologies: Second Doctoral Symposium, DSICT 2022, Manta, Ecuador, October 12–14, 2022, Proceedings](#)
4. [Information and Communication Technologies: 10th Ecuadorian Conference, TICEC 2022, Manta, Ecuador, October 12–14, 2022, Proceedings](#)
5. [Doctoral Symposium on Information and Communication Technologies-DSICT](#)
6. [Information and Communication Technologies: 9th Conference of Ecuador, TICEC 2021, Guayaquil, Ecuador, November 24–26, 2021, Proceedings](#)
7. [Information and Communication Technologies: 8th Conference, TICEC 2020, Guayaquil, Ecuador, November 25–27, 2020, Proceedings](#)

## CONFERENCES AND SEMINARS

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### Conference organizer

- *3rd Doctoral Symposium on Information and Communication Technologies, DSICT 2023, Cuenca, Ecuador, October 18-20, 2023*
- *11th Conference of Ecuador, TICEC 2023, Cuenca, Ecuador, October 18-20, 2023*
- *18th Conference of Learning Technologies, LACLO 2023, Cuenca, Ecuador, October 18-20, 2023*
- *2nd Doctoral Symposium on Information and Communication Technologies, DSICT 2022, Manta, Ecuador, October 12-14, 2022*
- *10th Conference of Ecuador, TICEC 2022, Manta, Ecuador, October 12-14, 2022*
- *1st Doctoral Symposium on Information and Communication Technologies, November 24–26, 2021*
- *9th Conference of Ecuador, TICEC 2021, Guayaquil, Ecuador, November 24–26, 2021*
- *8th Conference, TICEC 2020, Guayaquil, Ecuador, November 25–27, 2020*