

LUZ ALEJANDRA MAGRE COLORADO

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PROFILE

Highly motivated and experienced researcher with a background in mechatronics engineering. Skilled in problem solving and critical thinking, with a demonstrated ability to conduct thorough research and analysis. Strong understanding of various engineering topics, including Internet of Things, domotics, User Interface Design, engineering applications, and more recently, Virtual Reality. Proficient in using a variety of research tools and techniques, allowing to take on new topics and promptly learn about them. Excellent communication skills, both oral and written, and a proven track record of presenting research findings in a clear and concise manner. Dedicated to staying current with the latest developments in the field.

EDUCATION

PhD Track in Electronic Engineering, Dublin City University 2021 - Present

Funded by the SFI Centre for Research Training in Digitally Enhanced Reality (d-real)

Thesis work (in progress): “Smart garments for immersive home rehabilitation using AR/VR”

Master in Engineering with Emphasis in Electronics, Technological University of Bolivar 2016 - 2018

Funded by the Excellence and Adoption Center on Internet of Things (CEA-IoT).

Thesis work: “Security in 1-wire system. Case study: Home automation”

Bachelor of Mechatronics Engineering, Technological University of Bolivar 2010 - 2015

Thesis work: “Kinematic parameter estimation using close range photogrammetry for sport applications”. Granted a “Thesis with Honors” distinction.

WORK EXPERIENCE

Full-time Professor Jul 2019 - Dec 2021

Technological University of Bolivar

Cartagena de Indias, Colombia

- Full-time professor of the Mechatronics Engineering programme.
- Courses taught: Medical Robotics, Concurrent Design, Mechatronics Engineering Seminar, Mechatronics Workshop, Domotics, Digital Transformation. Research Topics: Internet of Things, Biomedical applications, Domotics, User Interface Design.
- Publication Chair and Editor of the “2020 IX International Congress of Mechatronics Engineering and Automation (CIIMA)” Conference Proceedings. ISBN: 978-1-7281-9496-7. DOI: [10.1109/CIIMA50553.2020.9290172](https://doi.org/10.1109/CIIMA50553.2020.9290172).

R&D Engineer Jan 2018 - Jul 2019

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Cartagena de Indias, Colombia

- Developed a communication system for domotics through mobile devices for the company AKP Systems, located in Portugal.
- Published and maintained the app on Google Play Store, Apple App Store, and Amazon Appstore.
- Sold numerous domotic systems to different companies and private clients.
- Assisted in the installation of the domotic systems and provided technical support and repairs.

Research Assistant Feb 2016 - Dec 2017

Center of Excellence and Adoption on Internet of Things (CEA-IoT)

Cartagena de Indias, Colombia

- Responsible for the research and Development of IoT prototypes for industry and agriculture.
- Research in security protocols oriented to IoT.

Technical Support Specialist

Ormucio Cloud Inc

Feb 2017 - Dec 2017

Cartagena de Indias, Colombia (Remote)

- Provided technical support to customers and kept documentation up to date.
- Worked in Cloud management and some front-end development.

Apprentice

Ormucio Cloud Inc

Sep 2016 - Jan 2017

Cartagena de Indias, Colombia (Remote)

- Provided technical support to customers
- Trained for cloud management

SKILLS

Programming skills

Javascript, Python, HTML, C++, Arduino, Matlab

Technology skills

Internet of Things, Rapid prototyping, Unity, FreeCAD, Raspberry Pi, Cloud User, Microsoft Office, Windows, Linux

Soft skills

Team work, verbal and written communication, problem solving, adaptability, interpersonal skills, critical thinking, project management

Languages

Spanish (Native), English (C1), German (A2), French (A2)

PUBLICATIONS AND CONFERENCES

Published and participated in 14 conferences and scientific events. Topics of the papers include: Internet of Things, Information Security, visual tracking, and sensor systems and different fields of application.

For a complete list of publications and conferences as well as the full-texts, please visit my [Google Scholar Profile](#) or [ResearchGate Profile](#)

ADDITIONAL RELEVANT TRAINING

3D Interface Technologies Completed in April 2022. GTE element offered by Dublin City University.

Introduction to Virtual Reality Issued Dec 2021. Online course offered through Coursera by the University of London. [Link to credential](#).

User Interface Design Specialization Issued April 2021. 4 online course specialization offered through Coursera by the University of Minnesota. [Link to credential](#).

Design Thinking for Innovation Issued July 2020. Online course offered through Coursera by the University of Virginia. [Link to credential](#).

REFERENCES

Shirley Coyle Assistant professor, School of Electronic Engineering, Dublin City University. Ireland
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