Clayder Gonzalez Cadenillas, M.Sc.

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Education

2016 – 2019 **M.Sc. Electrical Engineering, University of Chile**
Thesis title: *An Improved Feature Extractor for the LiDAR Odometry and Mapping Algorithm.*

2015 **Informatics Engineer, National University of Trujillo**
Thesis title: *Design of an Embedded System to Control a Robot Arm Using Voice Commands.*

2008 – 2012 **B.S. Computer Science, National University of Trujillo**

Research Publications

Conference Proceedings

1. R. J. H. Kemper, **C. Gonzalez**, and S. R. P. Gardini, "Autonomous navigation of a four-wheeled robot in a simulated blueberry farm environment," in *2022 IEEE ANDESCON*, 2022, pp. 1–6. DOI: 10.1109/ANDESCON56260.2022.9989865.

2. **C. Gonzalez** and M. Adams, "An improved feature extractor for the lidar odometry and mapping (loam) algorithm," in *2019 International Conference on Control, Automation and Information Sciences (ICCAIS)*, **Cited by 7**, 2019, pp. 1–7. DOI: 10.1109/ICCAIS46528.2019.9074665.

3. M. Mattamala, G. Olave, **C. Gonzalez**, N. Hasbún, and J. Ruiz-del-Solar, "The nao backpack: An open-hardware add-on for fast software development with the nao robot," in *RoboCup 2017: Robot World Cup XXI*, H. Akiyama, O. Obst, C. Sammut, and F. Tonidandel, Eds., **Cited by 12**, Cham: Springer International Publishing, 2018, pp. 302–311, ISBN: 978-3-030-00308-1. DOI: 10.1007/978-3-030-00308-1_25.

4. **C. Gonzalez-Cadenillas** and N. Murrugarra-Llerena, "Isolated words recognition using a low cost microcontroller," in *2013 III Brazilian Symposium on Computing Systems Engineering*, **Cited by 5**, 2013, pp. 77–82. DOI: 10.1109/SBESC.2013.28.

5. **C. Gonzalez-Cadenillas** and G. Reaño-Ortega, "Sistema de clasificacion automatica de objetos etiquetados con digitos escritos a mano usando ocr y redes neuronales," in *2012 Congreso Nacional de Estudiantes de Ingenieria Mecanica, Electronica y Ramas Afines*, 2012, pp. 1–6.

Participation in Funded Research Projects

2022 – 2023 **Co-Researcher**, Development of a Multi-functional Machine for the Sowing of Seeds of Different Sizes in Multi-cell Trays and Pealing of Seedlings according to the quality of Growth in Plant Nurseries at La Libertad-Perú, Funded by Consejo Nacional de Ciencia y Tecnologia (CONCYTEC), Peru.

2021 – 2023 **Co-Researcher**, Development of a Mobile Robot with Capabilities of Localization, Mapping and Data Processing using Artificial Intelligence to Improve the Accuracy of Blueberry Farming in Agriculture Companies at La Libertad-Perú, Funded by Consejo Nacional de Ciencia y Tecnologia (CONCYTEC), Peru.

Skills

Languages	Strong reading, writing and speaking competencies for English and Spanish.
Coding	C++, C, Python, Matlab, Microchip C, PIC Microncontroller Assembly, X86 Assembly, Latex.
Libraries	Point Cloud Library (PCL), Eigen Library, CUDA, OpenCV.
Frameworks	Robot Operating System (ROS).
Misc.	Academic research, teaching, Latex typesetting and publishing.

Employment History

2014 – Today	**Guidance Teacher**, Universidad de Buenos Aires (UBA), Embedded Systems Specialization, Project: Power Subsystem for Underwater Robotics, Student: Nicolas Hasbun.
2021	**Embedded Software Developer**, Delion Group, Project: Dfrag, A LiDAR-based Embedded System to Compute Surfaces Volumes after Mining Blasting.
2020 – Today	**Assistant Professor.** School of Electronics Engineering, Antenor Orrego Private University, Subjects: Robotics and Artificial Intelligence, Digital Signal Processing, Computer Programming.
2019 – 2020	**Lecturer.** School of Mechatronics Engineering, National University of Trujillo, Subjects: Computer Programming 2.
2018 – 2019	**Lecturer.** School of Electronics Engineering, Antenor Orrego Private University, Subjects: Digital Signal Processing, Computer Programming.
2015 – 2016	**Mobile Developer.** Wando Group
	Teaching Assistant. School of Electronics Engineering, Antenor Orrego Private University, Subjects: Computer Programming.
2008 – 2010	**Web-master.** Sociedad de Estudiantes de Ciencia de la Computacion (SECC)

Miscellaneous Experience

Awards and Achievements

2021	**First Place**, 2021 INTERCON Minesweeper Robots Contest, Federico Villareal National University - IEEE Peru Section.
2012	**Honorable Mention**, 2012 ACM - International Collegiate Programming Contest, South America/South Regional Contest, ACM-ICPC.
	Second Place, 2012 COINTEC - Projects Fair, School of Electronics Engineering, Antenor Orrego Private University.
2006	**First Place**, 2006 Congreso de Ingenieria de Sistemas - Programming Contest, School of Computing Systems, Antenor Orrego Private University.

Certification

2022	**Fundamentals of Accelerated Computing with CUDA C/C++**. Awarded by Nvidia Deep Learning Institute.
	Modern Robotics, Course 1: Foundations of Robot Motion. Awarded by Northwestern University.
2021	**Advanced microcontrollers**. Awarded by National University of Trujillo.
2007	**Certificate of Competency in English**. Awarded by English Language Institute - University of Michigan.

References

Prof Martin D. Adams
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Prof Ricardo Prado Gardini
Professor
Antenor Orrego Private University,
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spradog@upao.edu.pe