RAMÓN OSVALDO GUARDADO MEDINA

PROFILE

Senior Data Scientist with over 20 years of experience across the electronics, software, and education sectors, I excel in research and development, particularly within electronics and artificial intelligence. My strengths lie in leading and fostering teamwork, coupled with a robust capacity for problem solving and multitasking. I take charge in team settings, driving the adoption of innovative solutions that yield immediate benefits and contribute enduringly to organizational goals. My approach consistently ensures the achievement of high-impact outcomes in assigned responsibilities.

CONTACT

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SKILLS

Strategic Leadership
Project Management
Negotiation Skills
Analytical Skills
Research and Project Development
Teamwork Training and Experience
Ability to Work Under Pressure

EXPERIENCE

Universidad del Ejército y Fuerza Aérea
Zapopan, Jalisco, México
2015 – Present (Fee-based)

Research Professor: at the Military School of Maintenance and Supply and Head of the Electronics Academy.

Responsibilities: Modernizing the curriculum by integrating the latest technologies and methodologies in electronics and maintenance. My duties include developing innovative programs and overseeing applied research projects, making significant contributions to the advancement of technical knowledge in the military field.
Outcomes: The academy has earned recognition for its academic excellence and contributions to efficient maintenance and supply in military operations, known for training highly skilled officers prepared for contemporary challenges

Universidad de Guadalajara
Zapopan, Jalisco, México
2008 – Present (Fee-based)

Research Professor

Roles: Master's and Doctorate, focusing on advanced areas such as Neural Networks, Machine Learning, Deep Learning, and Artificial Intelligence. Imparting technical knowledge, fostering critical thinking, and innovation among my students.
Achievements: Students have developed research that has significantly contributed to the field of data science and artificial intelligence, resulting in publications in high-impact journals and the implementation of innovative technological solutions in various sectors

Fuerza Aérea Mexicana
Base Aérea No. 5 Zapopan, Jal., México
May 2023 – January – 2024

Technical Advisor: at the Air Force Research and Development Center of México.

Responsibilities: Within the aerial reconnaissance systems, I led the development and implementation of advanced technologies for the capture and analysis of aerial images. My work involved the detailed processing of these images, using artificial intelligence algorithms to enhance accuracy and efficiency in the identification and classification of ground features.

Highlights: This includes the optimization of aerial reconnaissance processes, resulting in a significant increase in the speed and reliability of the information gathered, crucially contributing to mapping and surveillance projects.

Staff Training and Orientation
Quality Control

TECHNICAL SKILLS

Artificial Intelligent
Machine Learning
Deep Learning
Mathematics for Artificial Intelligence
Hadoop, Databricks
AWS, GCP, AZURE
Python, Matlab/Octave, SQL, R

LANGUAGE

English: Advance Business-Level Proficiency

Spanish: Native Speaker

RESEARCH

Kernel Learning by Spectral Representation and Gaussian Mixtures, MDPI, Appl. Ssi. 2023, 13, 2473. https://doi.org/10.3390/app13042473

Multimodal Tucker Decomposition for Gated RBM Inference, MDPI, Appl. Sci. 2021, 11(16), 7397; https://doi.org/10.3390/app11167397

Analysis of Preprocessing Algorithms for Space Frequency and Mathematical Morphology on Mammograms, Open Access Library Journal, oalib.1100924, October 2014 Vol. 1 http://creativecommons.org/licenses/by/4.0/

PATENTS

Automated visual recognition of a microcalcification, US10902586B2, January 2021.
https://www.patentguru.com/search?q=US10902586B2

BREAST CANCER DETECTIONBREAST CANCER DETECTION, US10380739, August. 2019.
https://www.patentguru.com/search?q=US10380739B2

Globant México
Zapopan, Jalisco, México
2020 – 2023

Data Scientist: Specializing in the development of algorithms by applying techniques in artificial intelligence, Deep Learning, Machine Learning, and Generative AI.

Roles: My role is focused on analysis, where I combine skills in Natural Language Processing (NLP) and computer vision to develop advanced systems that enhance project evaluation and management. I have led projects aimed at optimizing software energy consumption internally.

Milestones: More sustainable and efficient infrastructure, which has enabled the agile implementation of AI-based solutions, significantly improving operational decision-making. These achievements have contributed to greater accuracy in predictions and a reduction in operational costs.

IBM de México
Zapopan, Jalisco, México
2015 – 2018

Data Scientist: Specializing in the development of algorithms using artificial intelligence techniques, Deep Learning, and Machine Learning.

Responsibilities: Developing advanced computer vision models for the IBM Watson platform, with a focus on early breast cancer detection. This role involved designing and implementing deep learning algorithms that significantly improve diagnostic accuracy in mammography.
Achievements: Two patents highlighting innovations in breast cancer detection using computer vision integrated into the Watson supercomputer

EDUCATION

Center for Research and Advanced Studies of the National Polytechnic Institute (CINVESTAV)
2018 – 2020

Postdoctoral Fellow in Computer Science (Research: Use of information theory to study deep neural networks).

University of Guadalajara
2012-2017

Ph.D. in Information Technologies (Dissertation: Intelligent detection of microcalcifications in mammograms based on fuzzy techniques).

Technological Institute of Ciudad Guzmán
2003 – 2006

Master's in electronic systems (Thesis: Spectro-temporal analysis of electrocardiogram leads).

Technological Institute of Ciudad Guzmán
1995 – 1999

Bachelor's in electronic engineering in Instrumentation and Control (Thesis: Design and development of a 4-degree-of-freedom robotic arm).