Jose Valentin Osuna Enciso

(https://portfolio-osuna-web.s3.ca-central-1.amazonaws.com/pageOsuna/index.html)
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Summary

As an experienced professional in researching, teaching, and the electronics manufacturing industry, I am a dedicated and results-oriented team player who enjoys collaborating with specialists from diverse fields to drive continuous improvement. With a passion for learning and a goal-driven approach to problem-solving, I bring expertise in time management, organization, and effective communication to any work environment. Whether working under pressure or in challenging conditions, I thrive on delivering quality results. I currently hold an open work permit in Canada.

Skills

Matlab, Python, C, MS-SQL; Data Analysis; Scientific literacy; Academic publication; Progress reporting; Team leader; Problem-solving; Customer service.

Experience

Tech Specialist (part-time) 11/2022 – present London Drugs Coquitlam, BC, Canada

As a part-time Tech Specialist at London Drugs in Coquitlam, British Columbia, I offer expert guidance to customers on products and services in the Computer, Audio Video, and Electronics departments. I pride myself on delivering high-quality customer service in a courteous and professional manner. To ensure that I am providing the most up-to-date information, I attend product knowledge seminars and stay current on emerging technologies and trends. In addition, I am responsible for inventory and merchandise management and work to maintain a professional sales image for the department.

Project Consultant 10/2022 – 12/2022 University of British Columbia, BC, Canada

During my tenure as a Project Consultant at the University of British Columbia in Vancouver, Canada, I led the programming of the modeling of Optimal Classification Trees (OCT) using a Differential Evolution (DE) algorithm. The OCT model allowed us to build univariate decision trees with various depths, while DE algorithm optimized the search space in which the model was developed. I proposed the configuration of the candidate solution and limits of the search space, which I named OCT-DE. Additionally, I transformed over 50 datasets from the UCI database from categorical/binary to real-valued and scaled them for analysis. By applying OCT-DE to these datasets, I found that it outperformed other algorithms, including CART and OCT optimized with commercial software (Gurobi), in terms of time and quality of the resulting tree. Based on these findings, I outlined the organization of a paper to be written, titled "Evolutionary Algorithms for Decision Tree Learning."

Associate Professor 02/2014 - 06/2022 Universidad de Guadalajara, Mexico

From February 2014 to June 2022, I served as an Associate Professor at the Universidad de Guadalajara in Guadalajara, Jalisco, Mexico, conducting research in Evolutionary Computation and Digital Image Processing. During this time, I authored more than 40 scientific documents, including publications in scientific journals and book chapters. My primary research focus in digital image processing was on image segmentation using the thresholding technique. To solve the underlying optimization problem, I utilized various metaheuristic approaches, such as Electromagnetic Field Optimization, Artificial Immune System optimization, Artificial Bee Colony optimization, Differential Evolution, Particle Swarm optimization, and Genetic Algorithms. Additionally, I explored other significant image processing problems, such as homography estimation, digital 2D filters design, and detection of simple geometric primitives. Currently, I am working on experiments aimed at improving ultrasound images using metaheuristics, and constructing binary classification trees to perform image classification, which will be published by mid-2023.

In my role as Associate Professor, I taught various courses to undergraduate and graduate students, including Introduction to programming using Python, Parallel programming in GPUs, Scientific Research Methodology, and Topics of computer graphics. I prepared and implemented course materials, evaluated and graded students' work, and initiated, facilitated, and moderated classroom discussions to help students develop critical thinking skills. Additionally, I planned, evaluated, and revised curricula, course content, course materials, and methods of instruction.

During my tenure, I served on academic and administrative committees that dealt with academic issues, including serving as the President of the Programming academy, and on the Committee of Informatics degrees. I also collaborated in the creation of four postgraduate programs, including Doctorate in Water and Energy, Master in Parallel Computing, Master of Science in Water and Energy, and Master in Applied Computing, which contributed to graduating 77 students in seven years and granted $1.35 million in scholarships.

Furthermore, I developed, maintained, and taught online courses, established course websites to make updated handouts and other resources available to students, and participated in student recruitment at the postgraduate level. I reviewed journal articles for potential publication and collaborated in research with experts from Spain, Egypt, and Brazil. I participated as a jury in 31 thesis defense exams for several M. of S. and D. of S. programs, and reviewed technical feasibility of proposals sent to government funding agencies in Mexico, inspecting 10 participants' proposals.

Master of Electronics and Computer Sciences; Doctorate of Computer Sciences
07/2008 - 12/2013 Universidad de Guadalajara; Instituto Politecnico Nacional, Mexico.

During my Master of Electronics and Computer Sciences and Doctorate of Computer Sciences studies at the Universidad de Guadalajara and Instituto Politecnico Nacional, I focused on researching applications of evolutionary computation algorithms to solve image processing problems as optimization problems. Through my research, I wrote 11 scientific documents, including papers and book chapters, which have received more than 390 citations according to Google Scholar. I also proposed a new evolutionary computation algorithm called

Allostatic Optimization, which solves optimization problems with real numbers. As recognition for my contributions, I was awarded the Best Postgraduate Thesis Award from Instituto Politecnico Nacional in 2014.

SMT Technician 01/2005 - 05/2008 Sanmina Corporation, Mexico

Worked closely with team members to deliver project requirements, develop solutions and meet deadlines. Installed, repaired, and maintained mechanical, hydraulic, and electronic components of SMT equipment. Read and interpreted technical manuals, drawings and schematics to make accurate repair decisions of SMT equipment.
Cleaned and inspected parts and assemblies at each production stage and documented production defects. Followed workplace safety policies and regulations.

Education

Instituto Politecnico Nacional, Ciudad de Mexico, Mexico; 12/2013; Doctor of Computer Sciences. Universidad de Guadalajara, Guadalajara, Jalisco, Mexico; 10/2011; Master of Electronics and Computer Sciences.