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Isis Y. Narvaez-Bandera

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CAREER HIGHLIGHTS

Industrial Engineer with 9+ years of experience in research, academia, and industry. I am a goal-oriented scientist, and data analyst with a diverse background and broad experience in data preprocessing, segmentation, transformation, integration, and visualization. I worked on collaborative and multidisciplinary projects, demonstrating problem-solving and analytical skills. I am a fast learner, who quickly adapts to multidisciplinary environments, always looking for new strategies that comply with and exceed expectations at a corporate level. Specialist in Quality Management, MS in Industrial Engineering, and Ph.D. candidate in Bioengineering.

EDUCATION

Ph.D. in Bioengineering - Bioinformatics   **Aug 2017 – Present**
University of Puerto Rico, Mayagüez Campus
                                Expected Graduation: Dic 2022
M.S. in Industrial Engineering - Management Systems   **Aug 2014 – May 2017**
University of Puerto Rico, Mayagüez Campus
                                GPA 4.6/5.0
Speciality, Quality Management   **Jan 2010 - Dec 2010**
Universidad del Atlántico, Barranquilla, Colombia
                                GPA 4.5/5.0
B.S. in Industrial Engineering   **Aug 2002 - Dec 2007**
Universidad del Atlántico, Barranquilla, Colombia
                                GPA 4.2/5.0
Technical, Analysis and Computer Programming   **Jan 2000 - Jul 2001**
Instituto Técnico Carl – Ros, Barranquilla, Colombia

EXPERIENCE

Planning Office University of Puerto Rico   *Aug 2017 – present*
University of Puerto Rico – Mayagüez Campus (Mayagüez, Puerto Rico)
- Perform annual report aligned to the UPRM Strategic Plan
- Prepare the Annual Interactive Compendium and UPRM Dashboard
- Perform peer institutions analysis using data mining techniques
- Develop improvement projects
- Supervise capstone projects

NSF Fellow graduate student   *Jan 2018 – Dec 2018*
Engineering Research Center for Manufacturing Technologies (CMaT)
- Applied statistics and data mining analysis to LC-MS and NMR data for metabolite characterization.
- Engaged in collaborative research related to the development of a novel method for metabolite characterization.

Teacher Assistant   *Aug 2016 – May 2019*
University of Puerto Rico – Mayagüez Campus (Mayagüez, Puerto Rico)
- Prepared and taught laboratories.
- Offered tutoring to students.

Research Assistant   *Aug 2014 – May 2017*
University of Puerto Rico – Mayagüez Campus (Mayagüez, Puerto Rico)
- Applied machine learning techniques to identify patterns in data and make decisions.
- Developed a new evaluation metric and implemented an algorithm capable of assessing the interaction between variables in a dataset.

Purchasing Manager   *Oct 2012 – Feb 2014*
Universidad Libre (Barranquilla, Colombia)
- Managed the acquisition of goods and services (procurement and supplier contracts).
- Implemented innovative recruitment strategies to obtain economies of scale.
- Responsible for ensuring the delivery of products purchased in the required time.
- Updated and established mutually beneficial relationships with the list of suppliers.

Professional Supplies   *Oct 2009 – Oct 2012*
Universidad del Atlántico (Barranquilla, Colombia)
- Led the procurement process in the Quality Management System.
- Developed a procurement plan and start up a purchasing module system.
- Gathered, organized, and managed the contractual records.
- Updated inventory of immovable property.

Quality Coordinator   *Feb 2009 – Oct 2009*
Muebles Relax (Barranquilla, Colombia)
- Documented the Quality Management System framed in ISO 9001: 2000.

- Provided training to general staff of the organization for Quality Management System.
- Studied and improved processes running times.
- Designed and implemented strategies to improve quality and effectiveness indicators different processes.

Administrative Assistant - COOP   *Jul 2006 – Dec 2006*
Gres Caribe S.A. (Barranquilla, Colombia)

- Collaborated in implementing the program of occupational health and safety.
- Developed training plans.
- Helped in payroll management.
- Studied and improved processes running times.

PUBLICATIONS AND THESIS

- **Narvaez-Bandera, I**., (Expected: Dec 2022). "Investigation of a Possible Association between Flaviviridae Infections and Parkinson's Disease through Optimization-based Meta-analysis" (Dissertation).
- **Narváez-Bandera, I**., Suárez-Gómez, D., Isaza, C., Cabrera-Ríos, M. (2021). "Multiple Criteria Optimization (MCO): a gene selection deterministic tool in RStudio". PLOS Computational Biology: Software.
- **Narváez-Bandera, I**., Torres-García, W. (2020). "Ranking Variable Combinations to Characterize Breast Cancer Subtypes using the IBIF-RF Metric". International Conference on Bioinformatics and Computational Biology (BICOB 2020).
- **Narváez-Bandera, I**., (2017). "An integrative data-driven approach to identify patterns in breast cancer patients" (Master thesis).
- **Narváez-Bandera, I**., Sánchez F., Torres-García, W. (2017). Integration of Multi-Omics Data for Breast Cancer Subtype Classification. In IIE Annual Conference. Proceedings (pp. 1314-1319). Institute of Industrial and Systems Engineers (IISE).
- **Narváez-Bandera, I**., Torres-García, W. (2016). Data-driven Approach to Extract Molecular Patterns in Breast Cancer using Transcriptomic and Clinical Data. In IIE Annual Conference. Proceedings. Institute of Industrial and Systems Engineers (IISE).
- Salazar, C., **Narvaez, I.,** (2016). Economic Analysis to Compare Electric and Biodiesel Vehicles for Transportation Service. In IIE Annual Conference. Proceedings. Institute of Industrial and Systems Engineers (IISE).
- Salazar, C., **Narváez, I.,** Hernández, L., & Ramirez-Beltran, N. (2015). Linear Programming to Reduce Cycle Time in a High Mix-Low Volume Reconditioning Line. In IIE Annual Conference. Proceedings (p. 1078). Institute of Industrial and Systems Engineers (IISE).
- **Narvaez-Bandera, I**., (2008). "Design and structuring of a quality management system for the *Universidad del Atlántico* planning office". (Bachelor thesis).

SELECTED ABSTRACTS AND PRESENTATIONS

- Poster presentation: Multiple criteria optimization (MCO): a gene selection deterministic tool in RStudio" Isis Y. Narváez-Bandera, Deiver Suárez-Gómez, Mauricio Cabrera-Ríos, Clara E. Isaza, 16th Annual Virtual PRI Scientific Conference, May 22, 2021, San Juan, PR.
- Oral presentation: "Investigation of a Possible Association between Flaviviridae Infections and Parkinson's disease through Optimization-based Meta-analysis", Isis Y. Narváez-Bandera, Mauricio Cabrera-Ríos, Clara E. Isaza, Feria de Investigaciones RUM, Mar 12, 2021, Mayagüez, PR.
- Oral presentation: "MCO-multiple criteria optimization-based gene selection: A deterministic tool for the analysis of genomic data", Isis Y. Narváez-Bandera, Deiver Suárez-Gómez, Mauricio Cabrera-Ríos, Clara E. Isaza, 6th Annual European Congress on Clinical & Translational Medicine (EUSTM), Oct 18-20, 2019, Vienna, Wien, Austria.
- Poster presentation: "Differentially expressed genes in West Nile Virus: Initial Results" Isis Y. Narváez-Bandera, Deiver Suárez-Gómez, Mauricio Cabrera-Ríos, Clara E. Isaza, Puerto Rico Clinical Research Summit 2019, May 09-10, 2019, San Juan, PR.
- Poster presentation: "Data Fusion of LC-MS and NMR for Metabolite Characterization" Isis Narvaez-Bandera, Sara Shen, Danning Huang, Seth Andrews, Andrew Passaro, Fariba Tayyari, Ph.D., Facundo Fernandez2,Ph.D., Art Edison, Ph.D., Steven Stice3, Ph.D. Wandaliz Torres-Garcia, Ph.D., CMaT ERC Retreat, August 15-17, 2018, Madison, USA.
- Poster presentation: "Integration of multi omics data for Breast cancer subtype classification", Isis Narvaez and Wandaliz Torres-García, Ph.D., JTM-PRISM 2018 to be held at Universidad del Turabo on April 28, 2018, Gurabo, PR.
- Poster presentation: "Integration of multi omics data for Breast cancer subtype classification", Isis Narvaez and Wandaliz Torres-García, Ph.D., XXII SIGMA XI student poster day, University of Puerto Rico, Mayagüez, May 10, 2018, PR.

ACHIEVEMENTS & WARDS

Alpha Pi Mu – Industrial Engineering Honor Society   *Dec 2015 – Present*
Institute of Industrial Engineers (IIE) Annual Conference ISERC   *Dec 2014 – Present*
Honorable mentions – Universidad del Atlántico (Barranquilla, Colombia)
* Outstanding academic performance in semesters II, III, IV, V, VI, VIII
* Outstanding women in industrial engineering ECAES   *Oct 2017*

SKILLS

- Proficient in R, Python, Matlab, Lingo, Simio, Statgraphics,
- Proficient in Microsoft Office (PowerBi, Word, Excel, PowerPoint)
- Intermediate skills in VBA for MS Excel and Minitab

- Fast Learner, Service Oriented, Teamwork Oriented
- Capable of Identifying, Critically Analyzing, and Solving Problems