

Jose Nino

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EDUCATION

Brigham Young University, Ira A. Fulton College of Engineering, Provo, Utah

09/2023

Ph.D. in Mechanical Engineering

- GPA: 3.43/4.00
- Academic Scholarship Recipient
- Relevant coursework: Predictive Modeling, Statistics Methods for Researchers, Optimization Techniques

Industrial University of Santander, Bucaramanga, Colombia

04/2016

Certificate in Project Management

Bachelor of Mechanical Engineering Degree

- GPA: 3.60/4.00, Ranked in Top 5%, Honors: *cum laude*
- Recognition for Outstanding Capstone Project

EXPERIENCE

Materials Innovation Laboratory, Brigham Young University, Utah, USA

06/2018 – Present

Research group that conducts multidisciplinary research in computational materials science

Research Scientist

- Designed and implemented a PyTorch-based generative diffusion model to generate synthetic images of materials
- Developed a highly accurate predictive model (91.7% accuracy) for forecasting the evolution of material's properties
- Curated and collected comprehensive materials datasets comprising 100+ variables for conducting regression analysis through advanced machine learning techniques.
- Published 1 research first-author article to the top 10% of scientific journals in computational mathematics
- Led and mentored a team of 3 engineering students to successfully complete two research projects

Perez Engineering Solutions, USA

10/2016 – 06/2018

Consulting Company of a \$14.9MM project portfolio

Mechanical Engineering Consultant

- Contributed to the design process of pilot and commercial plants within the electronic waste management sector
- Reduced expected capital expenses by 30% by delivering mechanical designs for new equipment as well as for retrofitting existing equipment
- Built 20+ 3D models and mechanical and process engineering drawings necessary to design 2 waste management plants
- Collaborated with cross-functional teams to develop and implement data-driven strategies, resulting in improved operational efficiency and cost savings

ECOPETROL, Colombia

01/2016 – 10/2016

Largest and primary petroleum company in Colombia, exceeding \$124MM in annual revenue

Data Analyst (Predictive Maintenance) Intern

- Developed data visualization dashboards, effectively communicating data insights about equipment performance to both technical and non-technical stakeholders
- Decreased equipment reports preparation time by 97% by programming and implementing efficient Excel macros
- Saved \$5.5MM in equipment maintenance expenses by designing a model to predict failures of non-repairable equipment

VOLUNTEER EXPERIENCE

The Church of Jesus Christ of Latter-day Saints, Villahermosa, Mexico

05/2012 – 05/2014

Full-Time Volunteer Representative

- Organized, facilitated, and taught 20 workshops on goal setting, relationship building, and leadership
- Provided training to 200+ representatives on a monthly basis in areas of personal development and goal fulfillment

ADDITIONAL

Computer Skills

- Programming Languages: **Python** (Pandas, NumPy, Matplotlib, Scikit-learn, SciPy, Pytorch), **Matlab** (Statistics and Machine Learning Toolbox), Visual Basic for Applications (**VBA**), **SQL**
- Software: MS Office Suites, Advance Excel, GitHub

Interests

- Sports (tennis, pickleball, ping-pong, soccer), movies, hiking and cycling

Languages: Proficient in **Spanish** and **English**