

PEDRO ÁVILA VILLARREAL

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EDUCATION

Universidad De Monterrey (UDEM) San Pedro Garza García, N.L.
Industrial and Systems Engineering, Academic Average: 92.3 June 2025
Relevant Coursework: Lean Manufacturing, Six Sigma, Quality Control, International Logistics, Linear Programming, Operations Research, Numerical Methods.
Awarded 2nd place in the Líderes Plus Leadership Program and received \$10,000 MXN in seed funding to develop a social impact project.

University of Michigan Ann Arbor, MI
Department of Industrial and Operations Engineering July 2024
Relevant Coursework: Content Analysis, Scientific Research, Data Analysis, Artificial Intelligence, Statistical Methods, Cross-Cultural Studies, Critical Thinking, Data Visualization, Programming Fundamentals.
Led a Generative AI project at the University of Michigan's SURE Research Program, earning 2nd place in the People's Choice Award at the program's showcase.

EXPERIENCE

Frisa Aerospace Santa Catarina, N.L.
Consulting Intern June 2025

- Applied **Lean Manufacturing** tools to identify root causes of delays using Minitab (Histograms, Pareto charts, descriptive statistics, etc.)
- Developed a Power Apps solution for traceability and a Power Bi dashboard.
- Standardized processes, implemented 5S in work areas, and introduced a Kanban system.
- Reduction of total lead time of 4 lathes by 1.43% (45 minutes), resulting in a savings of approximately \$13,000 USD annually.

Grupo Alen Santa Catarina, N.L.
Logistics Efficiency Intern and Consulting Intern December 2024

- Created On-Time In-Full (OTIF) performance reports and analyzed key efficiency metrics.
- Monitored stock in/out indicators to support supply chain decision-making.
- Used SAP ERP and Excel for data visualization and operational insights.
- Participated in a **Six Sigma** project to reduce resin overconsumption in bleach production lines (2L and 96 oz).
- Used Python and linear programming to optimize the resin mixture for plastic bottles and identify the most efficient formulation.
- Reduced resin overconsumption by 46.62%, achieving an estimated annual savings of approximately \$1,000,000 MXN.

Howmet Aerospace General Escobedo, N.L.
Continuous Improvement Intern June 2024

- 'How-Fix' project: data collection and analysis, digitalization of LPA audits and TPM checklists using Power Apps.
- Cycle time measurement and VSM updates.
- Standardization of production reports using excel dashboards.

LEADERSHIP AND ACTIVITIES

Universidad De Monterrey (UDEM) San Pedro Garza García, N.L.
Líderes Plus: Honors Program December 2024

- Selected for the "Líderes Plus" Leadership Program at UDEM, focused on high-achieving and actively engaged students.
- Worked with a multidisciplinary team of 8 on "Por un futuro sin fronteras", supporting Indigenous scholarships with Misión del Nayar.
- Won 2nd place and received \$10,000 MXN in seed funding.

Preparatoria Politécnica Santa Catarina Santa Catarina, N.L.
Math Teacher December 2022

- Participated in social impact projects at Preparatoria Politécnica Santa Catarina, a UDEM-affiliated high school supporting low-income youth.
- Taught mathematics to younger students, reviewed exams, and assisted in classroom management.
- Developed skills in public speaking, multitasking, and teamwork through various academic and community service activities.

SKILLS AND INTERESTS

- Soft Skills: Teamwork and collaboration, quick learner, critical thinking, creativity, problem-solving, leadership, proactive, multitasking and organization.
- Hard Skills: Microsoft Office (Specialized in Excel), Power BI, Minitab, MATLAB, Power Apps, Python, MySQL, Internal Auditor ISO 9001:2015, ISO 19011:2018 Guidelines.
- Languages: Spanish (Native), English (Toefl C1 ITP [624 pts])
- Interests: Enthusiast of music; I play instruments such as guitar, piano, and accordion, and I enjoy collecting vinyl record