**Daniela Alejandra Gómez Cravioto**

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# EXECUTIVE SUMMARY

* **Professional experience** in Project Management and Engineering (+5 years). Ability to manage suppliers and customer relationships, balance business imperatives (cost, complexity, and timing), and solve problems with data analytics and machine learning.
* **Strong written and verbal communication in English**. Experience working with multicultural teams and leading adoption of engineering programs. English ( Proficient - IELTS Certification Overall 8.0, 2020), French (Basic), Spanish (Native).
* **Machine Learning Tools:**  Python (NumPy, Pandas, Scikit-learn, Keras, TensorFlow, Statsmodels, and Seaborn), R (Dplyr, Tidyr, Ggplot2, Caret, and R Markdown), Weka, Microsoft Azure, Google Cloud, and Amazon Sage Maker.
* **Visualization and Databases Tools**: Tableau, PowerBI, Microsoft Excel, Microsoft Access, VBA, and MySQL.

# EDUCATION

**Master’s in Computer Science – Data Science and Applied Mathematics Specialization**, August 2019 – 2021 (Expected in June)

Tecnologico de Monterrey, Mexico - High Performance Scholarship and CONACYT scholarship.

**Bachelor of Science in Industrial and Systems Engineering**, August 2010- May 2015

Tecnologico de Monterrey, Mexico - High Performance Scholarship

\*Assessed by the University of Toronto, Compared Education Service (CES), as equivalent to a Canadian four-year bachelor’s degree.

**GM Certifications**

- General Motors DRE Certification (2019)

- General Motors DFSS Black Belt Certification (2018)

- General Motors NX9 Journeyman Certification (2018)

**Other Certifications**

- MIT Professional Education Certification: Machine Learning Leveraging Data (2020).

- MIT Professional Education Certification: Leading Digital Transformation (2020).

- Arizona State University DFSS Green Belt Certification (2014).

# PROFESSIONAL EXPERIENCE

**Design Release Engineer- Door Trim Subsystem** General Motors; Toluca, Mexico-April 2018-August 2019

Responsible for leading product development and integration activities throughout the GVDP . Effectively achieving program milestones by thorough and rigorous program management. Coached and led suppliers to timely execution of program deliverables with excellence.

* Performed a close follow up with suppliers and internal clients during the development stage and engineering changes management.
* Implemented engineering changes for the T1XX door trim subsystem.
* Production design release of Interior parts and subsystems for T1XX program.
* Lead DRE for the T1XX 2022 program for door trim subsystem.
* Lead the team for Cost-Analysis, Supplier Benchmarking, and Door Trim Design for the 2022 T1XX program.
* Identified, tracked, and resolved engineering issues.
* Performed problem solving using Data Analysis and Statistics for both supplier process and engineering design issues.
* Created and implemented DFMEAs.

**Validation Engineer – Interior Subsystem**. General Motors; Toluca, Mexico - May 2015 - April 2018

Responsible for the development and execution of robust validation plans (ADVP&R). Identifying potential quality problems early in the global vehicle development process and collaborating with the Design team to develop robust designs.

* Executed Validation Activities on time and with excellence for three major programs.
* Mentored a junior engineer on the validation process and tasks and coached two validation interns in the development of an interior component test procedure.
* Worked with the Interior Quality Team to track and correct previous programs’ complaints and contributed to a project to analyze Noise and S&R root cause issues.
* Contributed to the creation of two test procedures for interior validation.
* Performed three DFSS projects by using statistical tools and root cause analysis.
* Developed a Knowledge Management System to integrate and share all Engineer Center areas’ lessons learned.
* Designed a project management tool to automatize the creation of tactical plans for all programs.
* Performed internal and external benchmarking for interior components.
* Provided solutions to engineering problems based on Six Sigma Methodology.
* Performed quality reviews from engineering to GM assembly plants.

**Powertrain Emissions Lab Intern**. General Motors; Toluca, Mexico – January 2015– May 2015

Responsible for the development of a test result data management system.

* Created a dashboard for the management using Sharepoint, Powerpivot and PowerView.
* Reduced time to find information by 88%.

**Product Manufacturing Intern**. Robert Bosch; Toluca, Mexico – August 2014 – January 2015

Led quality audits in fifteen production lines, tracking non-nonconformities, and performing resolutions with statistical inference.

* Reduced the amount of waste in the whippers motor shafts production line by 30% with the use of the Six Sigma Methodology.
* Implementation of lean manufacturing standards, and various continuous improvement initiatives.

# DATA ANALYTICS AND MACHINE LEARNING PROJECTS

**COVID-19 Analysis** (April– June 2020)

*An Exploration and Forecast of COVID-19 in Mexico with Time-Series (Python programming)*

* Paper: An Exploration and Forecast of COVID-19 in Mexico with Machine Learning, 19 August 2020, PREPRINT (Version 1) available at Research Square [<https://www.researchsquare.com/article/rs-62035/v1>] For submission to the Cognitive Computation Journal.
* Identified functions that adjust to the infected population growth.
* Determined the feature importance of climate and mobility variables.
* Compared the prediction results of a time series model (VAR ) with a Deep Neural Network (LSTM).

**AirBnb Price Prediction** (February – May 2020)

*Mexico City’s AirBnb Listing Price Analysis Using Regression Techniques (R programming)*

* Paper: Mexico City’s Airbnb Listing Price Analysis Using Regression. Paper accepted and presented at the MCCSIS 2020. Pending Publication. [[https://www.researchgate.net/publication/344801275\_MEXICO\_CITY\_’\_S\_AIRBNB\_LISTING\_PRICE\_ANALYSIS\_USING\_REGRESSION]](https://www.researchgate.net/publication/344801275_MEXICO_CITY_'_S_AIRBNB_LISTING_PRICE_ANALYSIS_USING_REGRESSION%5d)
* Determined the key factors that affect the price of listings in Mexico City with Quantile Regression, Generalized Additive Modeling and Logistic Regression.

**Alumni Educational Attainment** August – November 2019)

*Alumni dataset analysis with tree-based machine learning models (WEKA software)*

* Paper: Factors That Influence Alumni Graduate Studies Attainment with Decision Trees. 2020 International Conference on Computer Science and Software Engineering (CSASE), 44–49 [<https://doi.org/10.1109/CSASE48920.2020.9142069>]
* Compared J48, RepTree and Random Forest to determine the most important factors that related to alumni higher education attainment.

**GM TREC Knowledge Management Tool** (February – December 2017)

*General Motors Side Project ( Winner of TREC Award)*

* Developed a Knowledge Management System to store and share lessons learned across the TREC SMTs (Electrical, CAE, Interior, Body, and Powertrain) to avoid similar failures or issues. This system automates reports and sends automatic notifications to key players.
* The system has a dashboard integration for management and data analysis.

**GM TREC Validation Activities App** (September 2015 – January 2016)

*General Motors Side Project*

* Designed a project management tool to automatize the creation of tactical plans for all new and current programs.
* Created a dashboard for the management using Sharepoint, Powerpivot and PowerView.

**GM TREC Emissions Lab Database** (January – May 2015)

*General Motors Side Project*

* Developed a database management system to allow business information to be more accessible, available, consistent, auditable, and secure using MS Access.
* Reduced time to find information by 88%.
* Created a dashboard for the management using Sharepoint, Powerpivot and PowerView.

**Work in Progress:**

1. Paper: Detecting Stress in Tweets with Natural Language Processing.

2. Paper: Analyzing Different Factors Affecting Income Distribution with Parametric and Nonparametric Models: From Econometrics to Machine Learning

3.Paper: Artificial Intelligence Approach to Stress Resiliency

# EXTRACURRICULAR AND VOLUNTEERING ACTIVITIES

- 2020 Saturdays’ AI fellowship.

- Second Place in Hack MTY Datlas Hackaton – Monterrey’s Car Accidents Prediction (2020).

- Toastmaster’s member (2017- 2019).

- Engineering Mentor and Judge in First Robotic Competition, GM Volunteer (2015-2018).

- SAE Mexico Committee Member (2015-2017).