

Rafael E. Arbex-Murut

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EDUCATION

University of California, Berkeley – Master of Information and Data Science May 2024

- Courses: Statistics, Applied Machine Learning, Natural Language Processing, Computer Vision, Data Ethics
- Capstone: Bias Beacon, created a Google Chrome plugin that automates bias detection in news articles using a fine-tuned BERT large language model. Deployed using Docker and AWS.

Virginia Polytechnic Institute & State University – B.Sc. Computer Science, Math Minor – Cum Laude May 2021

SKILLS & TOOLS

Programming & Scripting: Python, SQL, R, Java, C, C++, MATLAB, Windows, Linux, Unix, Docker

Data & Visualization: Power BI, Jupyter Notebook, Pandas, NumPy, Matplotlib, ggplot2, Excel

Machine Learning & AI: Supervised & Unsupervised ML, LLM's, Neural Networks, Keras, Tensorflow, PyTorch, HuggingFace, Productionizing Models, MLflow, Kubeflow

Cloud & Big Data: AWS, GCP, Azure Databricks, Spark, Hadoop, ETL, Data Warehousing, Data Pipelines

Business Intelligence: Git/Github, Agile, Scrum, Jira, Storytelling, Visualization, CI/CD, A/B Testing

Statistics & Modeling: Linear Regression, Bayesian Statistics, Predictive Modeling, Naïve Bayes, K-means, Decision Trees

Languages: Portuguese (Bilingual Proficiency), Spanish (Full Professional Proficiency)

PROFESSIONAL EXPERIENCE

General Motors Company **Detroit, Michigan**

Data Analyst, Software Engineer, Business Analytics – Software and Services June 2023 – Present

- Conduct statistical analyses of GM program workload data to identify bottlenecks in the vehicle development process.
- Managed project intake of analytics team to develop and deploy data-oriented analytical tools.
- Designed and productionized thermal controls monitoring system using Python, Matplotlib, Databricks and PySpark.
- Improved first-build compliance by creating an automated software quality metric system used by 100+ engineers.
- Automated portfolio management of GM vehicle architecture tags saving 300+ engineering hours per year.

General Motors Company – Technical Rotational and Career Knowledge (TRACK) Program **Detroit, Michigan**

Data Analyst; Data Specialist; Software Engineer; Validation Engineer – Global Product Development June 2021 – June 2023

- Developed a price management tool using T-SQL and PowerBI to improve sourcing and supply chain activity.
- Designed and automated software testing of Google Assistant features on three GM vehicle platforms.
- Created and led validation plans of three components across seven programs to ensure performance and safety compliance.
- Obtained Design for Six Sigma Greenbelt and Blackbelt certifications.

General Motors Company – Exploring Careers through Experiential Learning (EXCEL) Internship **Detroit, Michigan**

Intern, Electrical Components Hardware – Power Signals and Distribution Systems June 2020 – August 2020

White House Internship Program **Washington, D.C.**

Intern, Office of Presidential Correspondence January 2020 – April 2020

EXTRA-CURRICULAR, AFFILIATIONS & LEADERSHIP

General Motors Employee Resource Groups – GM Generations, Secretary and Business Planner; GMLN, Warren Brazilian Chapter Board; TRACK Engagement Team June 2021 – Present

- Promoted employee engagement and cultural initiatives at General Motors by organizing events averaging 800+ attendees.
- Tracked membership growth and oversaw PII-compliant member analytics for GM Generations employee resource group.

Sigma Phi Epsilon Fraternity – Communications Committee, Recruitment Committee 2018 – 2021

- Led recruitment efforts that resulted in the highest IFC GPA for 8 consecutive semesters.