Rafael E. Arbex-Murut

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.