# Joemichael Alvarez

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## Skills

**Machine Learning & Advanced Analytics:** Supervised Learning, Unsupervised Learning, MLOps, Intelligent Agent Frameworks, Large Language Models (LLMs), Statistical Methods

**Big Data & Cloud Platforms:** Amazon Web Services (AWS), MLOps, Scalable Workflow Development, Distributed Computing

Programming & Data Science Tools: Python, SQL, Apache Spark, Palantir Foundry, Flask, Typescript, C++

Data Visualization & Insights: Tableau, Power BI, Streamlit

## Work Experience

#### Lennar

Jul 2025 - Present

Senior Data Scientist

- Elevated MLOps infrastructure in Python and Palantir Foundry by implementing drift monitoring, automated alerting, retraining pipelines, and input validation—ensuring reliability for 10+ production models delivering national-scale forecasts in sales, homebuyer conversion, and other business outcomes.
- Designed and developed an enterprise-scale AI customer service agent MVP in Python on AWS Agentcore, built to streamline warranty, customer care, and homeowner support for Lennar's flagship app (targeting 1M+ customers); projected to safeguard \$120M+ in warranty exposure and deliver ~\$200M in savings.
- Engineered scalable backend tooling and APIs on AWS to power chatbot workflows and integrate warranty and support automation into Lennar's core customer experience platform.
- Served as cross-functional SME, leveraging business and platform expertise to support
  analytics, engineering, and operations teams in resolving complex challenges and driving
  innovative, high-impact solutions.

Nov 2024 - Jul 2025

Data Scientist II

- Partnered with cross-functional teams to reinvent national direct construction cost reporting, using SQL for data analysis, ensuring data veracity, and managing project delivery while supporting executive-level reporting in Power BI.
- Applied machine learning and NLP techniques with Python, Scikit-learn, TensorFlow, and Keras to support initiatives such as NPS score modeling and build-to-rent underwriting optimization.
- Developed and deployed scalable ML workflows in AWS and Palantir Foundry with MLOps best practices—supporting production pipelines with drift monitoring, retraining, and automated alerting.
- Partnered with leadership to develop an unstructured data pipeline in Palantir Foundry, leveraging LLMs, OCR, and image-to-table extraction to transform PDFs and scanned documents from an acquired company into structured, tabular data for downstream analytics.

Dec 2023 - Nov 2024

Data Analyst I

- Built and deployed an avatar chatbot backend using Retrieval-Augmented Generation (RAG), improving user interaction and operational efficiency.
- Designed and implemented a zero-shot image classification pipeline, automating QA workflows and reducing manual effort.
- Engineered a full-stack Foundry application, integrating ML models to optimize underwriting and operations.
- Developed scalable data workflows and performed ad hoc data science tasks.

• Presented data-driven insights and technical demonstrations to cross-functional teams, including executives and technical staff, driving adoption of innovative solutions.

Aug 2023 - Dec 2023

### Boeing Distribution Services Inc., Financial Analyst II ☑

- Built regression models to forecast accounts receivable and payable, improving financial accuracy and reducing risk.
- Conducted monthly analyses and created dashboards to streamline financial reporting for multimillion-dollar operations.
- Ensured accurate data reconciliation and reporting for enterprise systems managing hundreds of millions in revenue.
- Collaborated with teams to generate ad hoc analyses, providing actionable insights for decision-makers.

## Education

Aug 2024 – present Master of Science in Analytics, Georgia Tech

Jan 2022 - Jul 2023 Bachelors of Science in Data Analytics, Miami Dade College 🖸