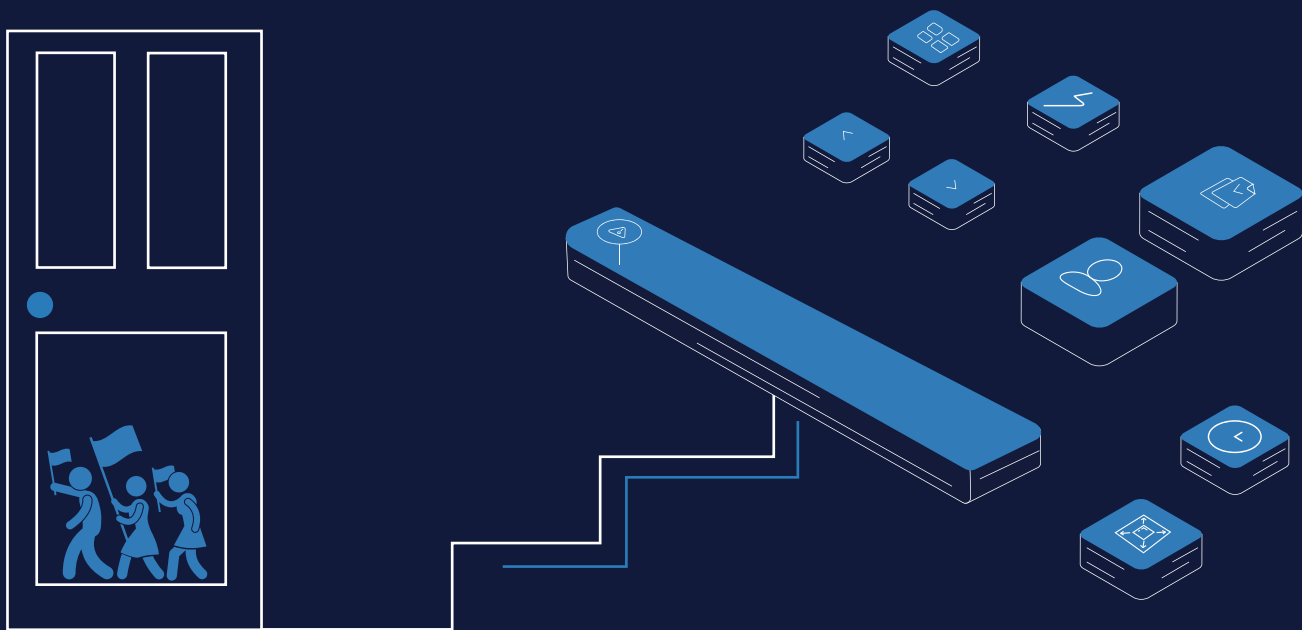




CASE STUDY

How Mars Took Steps to Evaluate the Potential Impact of the “Great Resignation”

WITH SCRIBBLE DATA



About MARS

Mars, Incorporated is a US based multinational CPG manufacturer of confectionery, pet food, and other food products and a provider of animal care services, with ~US\$45 billion in annual revenue. Mars was ranked as the sixth-largest privately held company in the United States by Forbes, and is a Fortune 100 company. The company is headquartered in McLean, VA and operates in more than 80 countries.

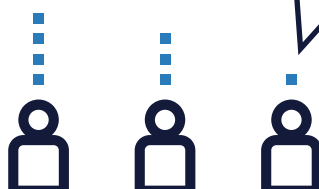
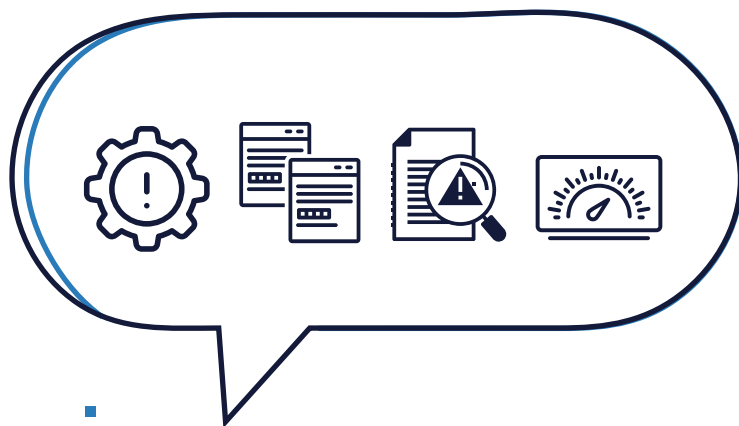
Mars' Challenges

In the year 2021, multiple industries were impacted by [“The Great Resignation”](#), which refers to the waves of resignations that hit these industries as a result of a COVID-weary workforce. Mars was no exception, as it faced significant staffing challenges in 2021, and wanted to understand the future attrition and how this would play out in the context of all the markets, segments and functions globally. Mars wanted to see if they could assign a “probability of attrition” based on which employees were quitting and their motivating factors.

The analytics team at Mars tried to solve this problem internally and spent close to 7 months finding a solution. However, due to a large number of disparate data sets, spread across hundreds of millions of employee records, this proved to be very challenging. Moreover, there was an unevenness to this data with different data sets captured at different points in time. For example, there were a number of duplicate data sets, some data sets included only timelines, whereas others included only demographic facts which would change over time.

Initially, the team tried to use traditional non-feature engineering techniques to prepare their data. The fact that none of this data was auditable added to the complexity - for example, the team had made a few simplifying assumptions to cope with the volume of data that couldn't be corrected at scale due to the lack of auditability, but applying the assumptions evenly would result in exceptions when trying to model the subsequent datasets.

Add to this the fact that the analytics team didn't have the bandwidth to address all the nuances and edge cases in the input datasets meant that their outputs didn't hold up to rigorous scrutiny by the business stakeholders, i.e. the Human Resources department. Based on this experience - one thing was clear for the analytics team - they needed to present their stakeholder with a large, consistent data set which was auditable so that they could eliminate any discrepancies pointed out by the stakeholders and also back their insights with relevant evidence.





Scribble Data Solution for Mars

The analytics team at Mars collaborated with Scribble Data to find the answers to these questions through data, and ML modeling.

Scribble Data provided Mars a standardized way to prepare data at scale to ensure it met their auditability requirements, and be able to provide evidence during their interactions with relevant stakeholders through systematic sampling of data. Scribble Data's Enrich platform also provided them with a self-serve interface to consume this data.

Auditability

Scribble Data's Enrich platform provided Mars with a structured, streamlined, and auditable way of tracking the evolution of a dataset so that the teams could understand what was going on at each step. This gave them additional contextual information about the journey of each dataset.

This was critical because the analytics team had to go back to the HR team with data that was backed by the relevant evidence - the raw data (and problems with each record). For example, issues like start dates of certain employees showing as prior to the incorporation of the company, duplicate entries (identified probabilistically using Enrich), among others.

Adding context to the data

The addition of rich snippets to the datasets allowed the Mars team to get a lot more context behind every piece of information. This helped address the issue of tribal knowledge within the organization, and also gave team members a granular level of detail, down to every pipeline run.

For example, whenever the teams noticed any aberrations with any incoming data, the data team could document it within the code and make it available to the relevant stakeholders/consumers of this data with every version of the dataset.

Notifications

Enrich's feature app store made the Mars analytics team's interactions with the business stakeholders very efficient. The analytics team was easily able to manage versions, with an update notifying the relevant decision-makers every time a version was available, and where

to look for it. A typical pipeline run was complex, with each one lasting well over 14 hours on an average, and this ensured the analytics teams did not have to monitor it in real time for issues themselves

Feature App Store

For every project that required resources from other internal teams, the analytics team would have to submit a detailed project plan with timelines and milestones. However, with projects like these which lacked clarity on timelines, this proved to be challenging. The ease of use with the low code app interface provided by Enrich, and its configuration by the Scribble Data as per the business requirements of Mars' analytics team meant that they were able to eliminate bottlenecks in their system and not have to rely on the data engineering team.

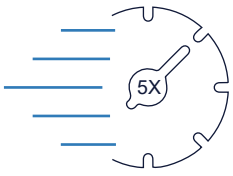
Scalability

The Enrich Intelligence Platform provided Mars with a scalable solution that would not only help them solve their employee retention use case, but also multiple smaller business problems by democratization of features across the organization.

Flexibility in hosting

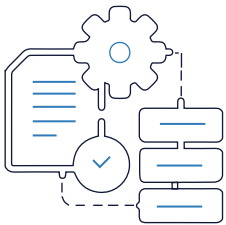
Enrich provided Mars with the flexibility to host their data and compute as required. It was well secured with multi-level authentication and role-based-access control.

Results



5x faster time to value

4 weeks taken from concept to production at scale compared to ~5 months spent in just data preparation before Scribble Data.



Friction-Free Usage

The versioned feature engineered datasets were made available through a secure app, and users could access any subset of any dataset, samples, or automatically generated feature engineering notes any time without requiring any additional coordination.



Increased confidence in decision making

With multi-level audit logs, documentation, and evidence within the Enrich Intelligence Platform. This provided the team with a high degree of auditability and visibility into each transform.

Customer Speak



VIDYOTHAM REDDI

*Director, Growth Analytics |
Market Intelligence and Analytics*

Working with large, disparate data sets that are captured at different points in time is never easy, especially when it's for business-critical tasks. With Scribble Data, that's no longer a challenge for us as it gives us access to reliable data with a high degree of auditability. It also significantly reduces our reliance on the central engineering team – so our bandwidth is freed to focus on solving business problems and use cases instead of infrastructural issues.

About scribble Data

Scribble Data is a Machine Learning powered decision analytics company. Our mission is to empower organizations to solve persistent business problems with data they can trust. With the Enrich Intelligence Platform, we enable businesses to make high-impact decisions fast, with reliable and trustworthy data. Our seamless data transformation and pre-built app store frees up valuable time for developers and analysts to focus on critical tasks and collaborate effectively when it comes to solving a multitude of data use cases.

Visit www.scribbledata.io to learn more.