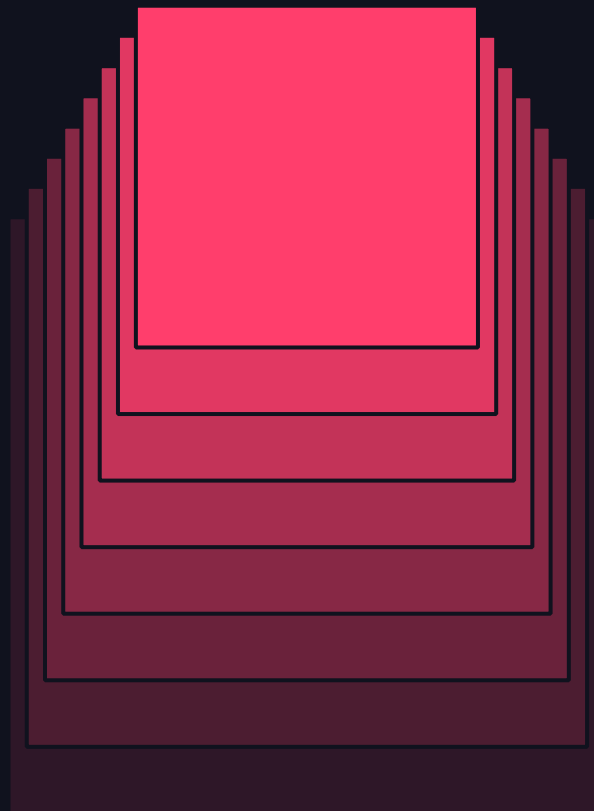
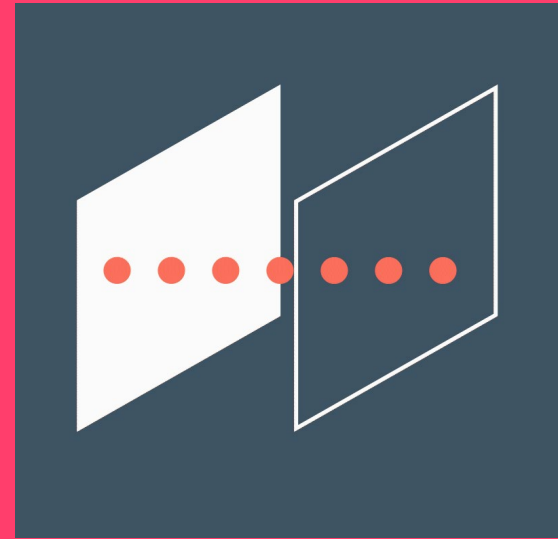


SOLVE THE LAST-MILE PROBLEM OF ANALYTICS

Alex Gnibus, Alteryx
June 11, 2024



DATA HAS A LAST-MILE PROBLEM.



HOW DOES DATA REACH THE BUSINESS?



Your data team
has the data
ready to go...

...but can the rest
of the business
get value from it?

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Your data team
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**24% of collected
data is never used**

...but can the rest
of the business
get value from it?

GET YOUR DATA TO THE LAST MILE



Your data team
has the data
ready to go...

- Data discovery
- Use case identification
- Preparation & analysis
- Sharing insights

...but can the rest
of the business
get value from it?

GET YOUR DATA TO THE LAST MILE



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AI-enhanced

DATABRICKS + ALTERYX



Databricks is your data infrastructure.

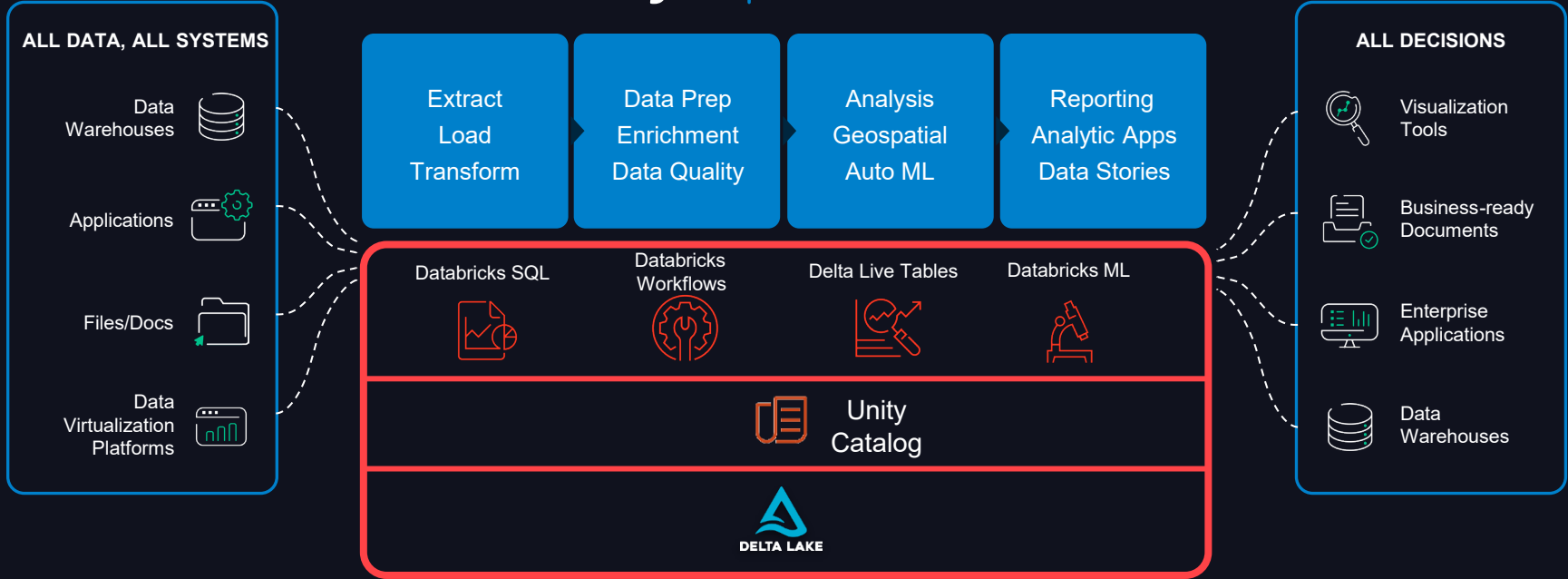


Databricks is your data infrastructure.

Alteryx is the easy, no-code interface for your infrastructure.

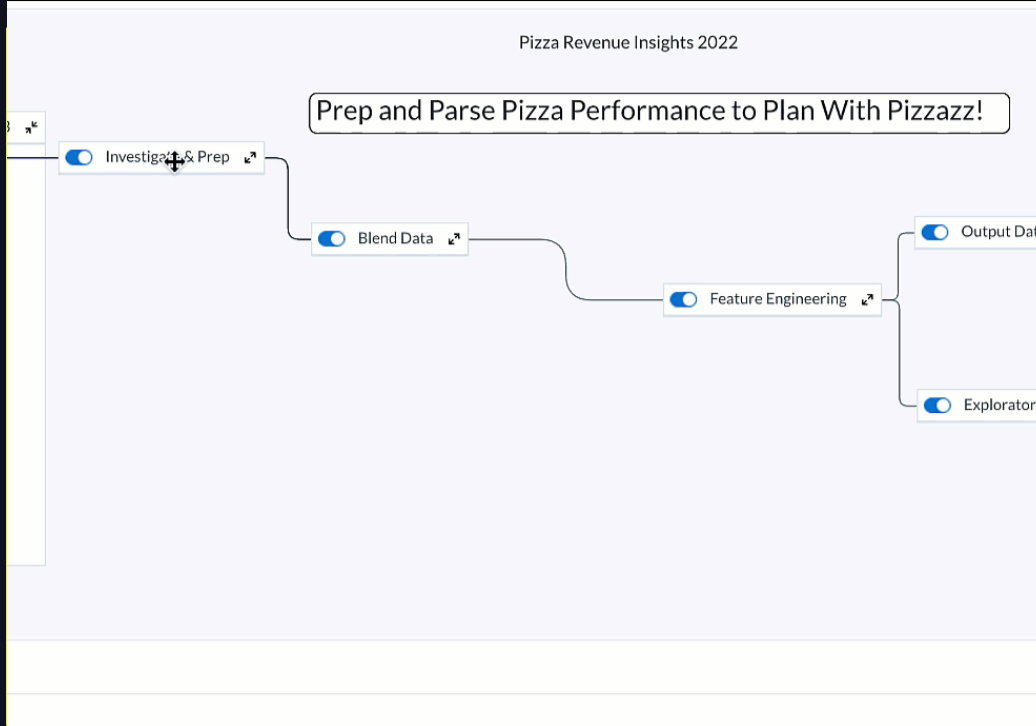


alteryx | AI PLATFORM FOR ENTERPRISE ANALYTICS



ALTERYX DESIGNER CLOUD

AI-assisted transformations in a drag-and-drop canvas



- Choose from no-code building blocks to structure, join, union, aggregate, and more
- Speed up productivity with AI-powered suggestions
- Leverage Databricks as your execution engine

ALTERYX AUTO INSIGHTS

Give business users their own data expert



- Quickly surface automated insights
- Summarize and explain business results in clear, simple natural language and intuitive visualizations
- Playbooks: Input your own dataset to generate use cases for your business goals



ROI

Today's
Analytics
Experts

Today's Business Experts

Your future AI-powered
analytics team

SUPPLY CHAIN USE CASE

How will the business use this shipments dataset?

The screenshot displays the Databricks Catalog Explorer interface. The left sidebar shows navigation options: New, Workspace, Recents, Catalog (selected), Workflows, Compute, SQL, SQL Editor, Queries, Dashboards, Alerts, Query History, SQL Warehouses, Data Engineering, Job Runs, Data Ingestion, Delta Live Tables, Machine Learning, Playground, Experiments, Features, Models, and Serving.

The main area shows the 'Catalog Explorer' for the 'unity_cloud' catalog, specifically the 'supply_chain_demo' schema. The selected table is 'unity_cloud.supply_chain_demo.shipments'. The table's metadata and options are visible at the top right: 'Add data', 'Browse DBFS', and 'cloudconnectors... 24 GB, 6 Cores'.

The table 'shipments' is displayed with the following columns: **1.2 Shipping_Cost**, **1.2 Unit_Price**, **1.2 Quantity**, **1.2 Hoarding**, **1.2 Transaction**, and **1.2 Warehouse**. The data rows are as follows:

		1.2 Shipping_Cost	1.2 Unit_Price	1.2 Quantity	1.2 Hoarding	1.2 Transaction	1.2 Warehouse
1	7	6.89	4.13		1 No		1 Aurora
2	8	6.89	4.13		1 No		1 Aurora
3	4	9.17	6.48		2 No		1 Aurora
4	7	19.99	27.75		1 No		1 Aurora
5	6	6.19	8.6		1 No		1 Aurora
6	7	6.17	28.15		1 No		1 Aurora
7	5	3.9	65.99		1 No		1 Aurora
8	10	5.83	7.64		2 No		1 Aurora
9	8	1.39	10.94		1 No		1 Aurora
10	8	8.93	4.53		2 No		1 Aurora
11	6	5	35.99		1 No		1 Aurora
12	8	16.09	39.4		1 No		1 Aurora
13	7	7.49	28.8		2 No		1 Aurora
14	7	4.92	35.44		2 No		1 Aurora
15	6	19.99	78.69		1 No		1 Aurora
16	6	0.96	5.98		5 Yes		1 Aurora
17	7	2.25	9.11		1 No		1 Aurora
18	5	7.99	34.77		2 No		1 Aurora
19	7	0.96	2.94		4 Yes		1 Aurora
20	4	5.3	14.2		1 No		1 Aurora
21	35	4	7.59		1 No		1 Aurora
22	4	0.5	2.88		1 No		1 Aurora



End users in Alteryx Analytics Cloud can search Databricks Unity Catalog

The screenshot shows the 'Import Data' interface in Alteryx Analytics Cloud. The top navigation bar includes 'ANALYTICS CLOUD', 'Overview', 'Library', 'Connections', 'Data', 'Schedules', and 'Jobs'. The 'Data' tab is active. On the left, a sidebar lists various data sources: 'Upload', 'S3 Private Data Storage', 'PARTNER ENABLEMENT', 'AG_Databricks' (highlighted), 'Alteryx Salesforce', 'DatabricksCS_AWS', 'DBXtest', and 'SE ENABLEMENT MGMT (Management Role)'. The main area is titled 'Choose a table' and shows the selected connection 'AG_Databricks'. Below this is a search bar with the text 'Search...'. A table lists available tables with a 'NAME' column:

NAME
main
system
unity_cloud
unity_cloud2
hive_metastore



End users in Alteryx Analytics Cloud can search Databricks Unity Catalog

The screenshot displays the Alteryx Analytics Cloud interface. At the top, a navigation bar includes 'ANALYTICS CLOUD' and menu items: 'Overview', 'Library', 'Connections', 'Data', 'Schedules', and 'Jobs'. Below this, a 'Import Data' panel is open, showing a search bar and several data sources: 'Upload', 'S3 Private Data Storage', 'PARTNER ENABLEMENT', 'AG_Databricks', 'Alteryx Salesforce', 'DatabricksCS_AWS', 'DBXtest', and 'SE ENABLEMENT MGMT (Management Role)'. The 'AG_Databricks' source is selected, leading to a 'Choose a table' dialog. This dialog shows a search bar and a list of tables under the path 'AG_Databricks / unity_cloud'. The 'shipments' table is highlighted with a plus icon. A preview of the 'shipments' table is shown, containing 19 columns and 10 rows of data. A 'Create Dataset with SQL' button is visible on the right side of the preview.

Order_ID	Warehouse_ID	Order_Date	Arrival_Date	Order_Pr
87243	2	2020-01-09	2020-01-30	Not Specif
18561	2	2020-01-09	2020-01-31	Not Specif
90431	2	2020-01-10	2020-01-28	Not Specif
91200	2	2020-01-12	2020-02-02	Not Specif
86144	2	2020-01-15	2020-02-04	Not Specif
88958	2	2020-01-17	2020-02-07	Not Specif
87654	2	2020-01-30	2020-02-18	Not Specif
90185	2	2020-01-31	2020-02-24	Not Specif
86640	2	2020-02-02	2020-02-24	Not Specif
32164	2	2020-02-02	2020-02-24	Not Specif



Create a data layer in Alteryx Auto Insights

Create Data Layer

Q Search Upload Files Create Connection

Use a dataset below to create a Data Layer. To create a new dataset, Upload Files or Create a Connection in Alteryx Analytics Cloud.

Datasets

Name	Owner	
shipments	Alex Gribus	Use
Chicago_Stores 20240521_233743.parquet	Calli Morales	Use
Chicago_Customers 20240521_233700.csv	Calli Morales	Use
Hotel_Restaurant_Bookings	Alex Gribus	Use

Rows per Page: 25 1-25 of 409

Update list Cancel



Discover use cases from your dataset with Playbooks

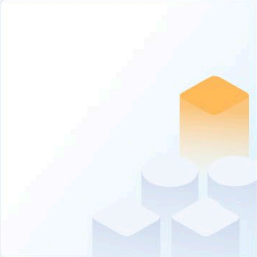
AUTO INSIGHTS Missions Search Data Layers **Playbooks**

Playbooks uses AI to suggest use cases and reports. This technology is new and improving.

Playbooks

Evaluate analytics use cases and reports. [Learn more](#)


Enter a Scenario Scan your Data



Scan your data to explore AI-generated reports ⓘ

Select a report that matches your needs to edit and distribute to your team

[Load use cases](#)

 Playbooks is powered by AI

Text prompts and, where applicable, the structure and randomized sample values of datasets used to generate use cases will be shared with Microsoft Azure Cognitive Services in order to power Playbooks' recommendations. When using Playbooks, all terms and policies of [Azure Cognitive Services](#) also apply.



Discover use cases from your dataset with Playbooks

⋮ 💡 AUTO INSIGHTS Missions Search Data Layers Playbooks

Playbooks / Use cases shipments

← Select a use case

Based on your dataset, we think these use cases would be a great match for you.

📈 Optimize Order Processing Efficiency

Analyze the average sales, transactions, and quantities per Order_ID to identify inefficiencies in the order processing system. By comparing these metrics across different warehouses, shipping modes, and order priorities, patterns might emerge that could help streamline operations.

[Generate report](#)

✓ Increase operational efficiency ✓ Reduce order processing time

📦 Improve Shipping Cost Management

By analyzing the relationship between shipping cost and other variables such as warehouse, order priority, and shipping mode, potential areas for cost reduction can be identified. For instance, certain shipping modes could be more cost-effective for certain types of orders or from certain warehouses.

[Generate report](#)

✓ Reduce shipping costs ✓ Improve budget allocation

📊 Identify Late Delivery Causes

By analyzing average days late per Order_ID in relation to the warehouse, shipping mode, and order priority, possible reasons for late deliveries can be identified. These insights can be used to take corrective actions to improve on-time delivery rates.

[Open weekly report](#)

✓ Improve on-time delivery rate ✓ Increase customer satisfaction

📦 Warehouse Performance Evaluation

The performance of each warehouse can be evaluated by comparing average transaction, sales, and quantity per Order_ID. This can reveal underperforming or overperforming warehouses, guiding resource allocation and operational strategy.

[Generate report](#)

✓ Improve resource allocation ✓ Increase operational efficiency



Identify late delivery causes with AI-generated insights

AUTO INSIGHTS Missions Search Data Layers Playbooks

← Return to all Missions Playbook: Identify Late Delivery Causes Expanded Send via Email Subscribe Share Edit Mission

Mission Summary Magic Documents

Mission Summary

Click here to get a summary of your insights.

- Overview of Delivery Timeliness**
Average Days Late per Order ID
26-31 Dec 2021 vs 19-25 Dec 2021
- Impact of Warehouses on Delivery Timeliness**
Average Days Late per Order ID comparing Wa...
26-31 Dec 2021 vs 19-25 Dec 2021
- Impact of Shipping Mode on Delivery Timeliness**
Average Days Late per Order ID comparing Shi...
26-31 Dec 2021 vs 19-25 Dec 2021
- Impact of Order Priority on Delivery Timeliness**
Average Days Late per Order ID comparing Or...
26-31 Dec 2021 vs 19-25 Dec 2021
- City-wise Breakdown of Late Deliveries**
Average Days Late per Order ID comparing City
26-31 Dec 2021 vs 19-25 Dec 2021
- Impact of Hoarding on Delivery Timeliness**
Average Days Late per Order ID comparing Ho...

MISSION SUMMARY

Playbook: Identify Late Delivery Causes

Mission description

This report aims to identify the causes of late deliveries by analyzing various factors such as warehouse, shipping mode, and order priority. It will help in improving the on-time delivery rate, increase customer satisfaction, and reduce penalties for late deliveries.

Use case
Identify Late Delivery Causes

Overview of Delivery Timeliness

SOURCE: SHIPMENTS Options

This page provides an overview of the average days late per Order_ID. It sets the stage for the following deep-dive anal...
[View more](#)

Average Days Late per Order ID 5.44 **↑ 0.22 (4.25%)**
26-31 Dec 2021 vs 19-25 Dec 2021 [View page](#)

What caused this ↑ 0.22 increase in Average Days Late per Order ID?

Express Air Ship Mode	↑ 2.79 +0.8
Critical Order Priority	↑ 5.91 +0.64
Aurora City	↑ 1.18 +0.6
Aurora Warehouse	↑ 1.18 +0.6

Average Days Late per Order ID for 19-25 Dec 2021 to 26-31 Dec 2021

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Generate emails and presentations with Magic Documents

Mission Summary **Magic Documents**

Documents [+ New document](#)

× Edit presentation

Medium

Presentation Email Message

Adjust max slide length

Audience ⓘ

Head of Supply Chain

Objective ⓘ

Improve results

AI-Generated business recommendations ⓘ

Include recommendations ▾

Topic ⓘ

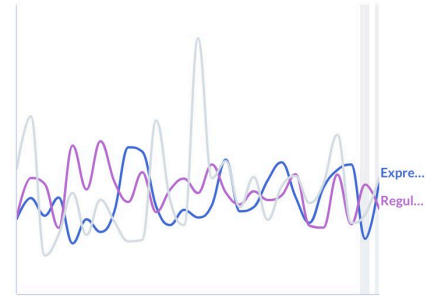
Playbook: Identify Late Delivery Causes

Language

English ▾

Are We in the Right 'Ship' Mode?

- Express Air shipping mode is contributing to the delivery delay
- Regular Air, however, is helping reduce the delay
- Most shipping modes have seen an increase in delay
- Recommendation: Reconsider the utilization of Express Air and potentially increase usage of Regular Air

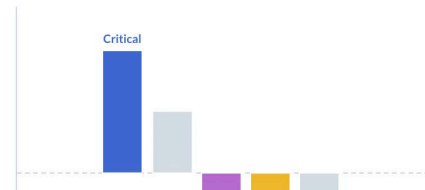


Source: Alteryx Auto Insights

4

Priority Paradox

- Critical orders are contributing to the increase in delivery delay
- Medium and Not Specified orders are helping reduce the overall delay
- Out of 5 order priorities, 2 have seen an increase in delay
- Recommendation: Review processes for handling Critical orders and implement strategies to improve timeliness for these high-priority deliveries



CONTINUE THE JOURNEY

Take action with other Alteryx Analytics Cloud applications

Designer
Cloud

The screenshot displays the Alteryx Designer Cloud interface. At the top, a workflow diagram shows two input data tools connected to a JOIN tool. The right-hand pane is configured for a JOIN operation, with 'Join by Specific Columns' selected. The 'Left Columns' field is set to 'id' and the 'Right Columns' field is set to 'Customer ID'. Below the configuration, the 'Columns to Keep' section is visible. The main results pane shows a 'Random Sampler' tool outputting 80,524 of 321,982 rows (50MB). The results are displayed in a table with 15 columns: Row ID, country, amount, has_activated, trending_date, id, sales_2021, and quantity. The first four rows of data are as follows:

Row ID	country	amount	has_activated	trending_date	id	sales_2021	quantity
1	Cayman Islands	629	T	09/28/2020	6789300234963E		18,843
2	Sweden	2093	F	11/07/2020	76299609209909U		983,264
3	Latvia	7048	F	05/31/2020	78930209399595P		19,024
4	Senegal	892	F	10/23/2020	76880209993602N		183,029

CONTINUE THE JOURNEY

Take action with other Alteryx Analytics Cloud applications

Designer
Cloud

The screenshot displays the Alteryx Designer Cloud interface. On the left, a workflow canvas shows a 'JOIN' tool. The central pane shows a 'Prep Data' tool configuration with 'Join by Specific Columns' set to 'Customer ID'. Below this, a 'RESULTS' table shows a random sample of 80,524 of 321,982 rows. The table includes columns for Row ID, country, amount, mar_status, trending_date, id, sales_2021, and quantity. On the right, the 'Data Insights' panel is active, showing a 'Correlation Matrix' and a 'Chord Diagram' visualization. The 'Data Insights' panel also includes a 'Select Target' dropdown set to 'Sales_2021', a 'Machine Learning Method' dropdown set to 'Regression', and a 'Chart Cognition' section with 'Correlation Matrix' selected.

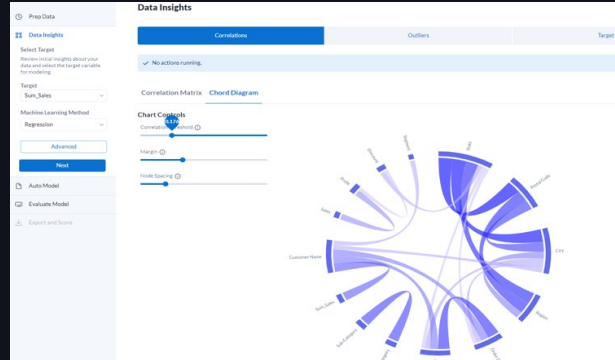
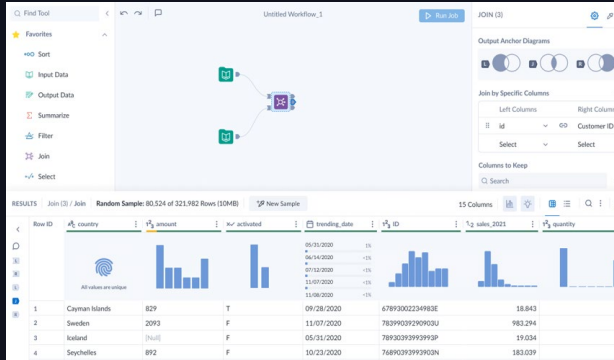
Row ID	country	amount	mar_status	trending_date	id	sales_2021	quantity
1	Cayman Islands	829	T	09/28/2020	4789300234963E		18,843
2	Sweden	2093	F	11/07/2020	76296020209600U		983,241
3	Latvia	1048	F	05/31/2020	78920209399595P		19,024
4	Senegal	892	F	10/23/2020	7488020992802N		183,029

Machine
Learning

CONTINUE THE JOURNEY

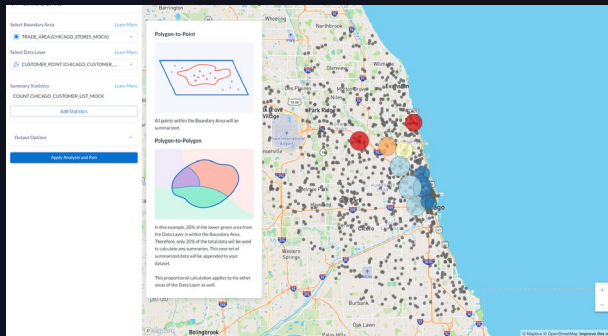
Take action with other Alteryx Analytics Cloud applications

Designer
Cloud



Machine
Learning

Location
Intelligence



RESOURCES

Get started with Alteryx + Databricks to reach the last mile of analytics

Launch Alteryx from Databricks Partner Connect

- Find the Alteryx Designer Cloud tile in Partner Connect to start a free trial with your Databricks connection configured

Read the Databricks + Alteryx Best Practices Guide

- Learn how to set up your Databricks connection in the environment of your choice

Visit our booth!

- Chat with an Alteryx expert right now to learn more about how the business can get more value from your Databricks stack.

THANK YOU!

