Molecula enables deeper customer insight through real-time data access.

**MARKET TRENDS:** Customer insights and analytics are a crucial part of a company's growth and success. To illustrate this, McKinsey reports that, “the likelihood of achieving above-average profitability is almost 19 times higher for customer-analytics champions as for laggards.” According to Hubspot, “marketers who use segmented campaigns note as much as a 760% increase in revenue.”

Traditional age and income segmentation is not enough when it comes to competing in today’s data-rich environment. Successful companies are leveraging internal and external data to reveal invaluable information about purchasing behavior, brand perception, what drives loyalty, and so much more.

Advanced statistics technologies leveraging AI and machine learning are empowering companies to identify causal relationships between traits and behaviors that are often not intuitive. Insights that were previously only derived through costly and time consuming A/B testing can now not only be derived, but can be updated in real-time as they change. This is important because customer segments are not static buckets but are continually shifting communities.

While there is a wide range of technology available to reveal customer insights through analytics, the success hinges on one very important resource: data. Massive amounts of data must be accessible before meaningful insights can be achieved.
**Molecula for Customer Insights & Analytics**

Molecula is an enterprise feature store designed to deliver secure, fast, continuous access to all your data. The first and most crucial step in leveraging customer insights and analytics is ensuring all of the data is ready and accessible.

Rather than the conventional approach of moving, copying, and pre-aggregating data, Molecula extracts features from each of the underlying data sources and stores them in a centralized feature store—the most efficient data format built for advanced analytics and machine learning. The feature store maintains up-to-the-millisecond data updates with no upfront data preparation necessary.

With Molecula’s feature extraction technology operations across machine learning and analytics projects can be executed against the centralized feature store without the need to access the actual data. As the data inevitably grows over time, the benefits grow even greater since the feature store does not scale 1:1 with the data.

Whether powering a customer-facing application, an internal dashboard, or customizing marketing initiatives, Molecula enables real-time computations on any and all data at unprecedented speeds, with incredibly low latency, requiring a fraction of the hardware as compared to conventional methods.

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**Molecula Enables**

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<tr>
<th>Feature Store</th>
<th>Centralized Data</th>
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<tr>
<td><strong>AI-ready feature store</strong></td>
<td>Ultra low latency access for all Analytics and AI projects</td>
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<td>Continuously extract and update features in real time</td>
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<th>Filtering</th>
<th>JOINs</th>
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<td><strong>Time-oriented filtering</strong></td>
<td>Highly performant without pre-aggregation or preprocessing</td>
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<td>Track and filter time at a feature level</td>
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<th>Footprint</th>
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<td><strong>Reduced data footprint</strong></td>
<td>Seamless integration into existing architecture</td>
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<td>Up to 85% lossless data reduction</td>
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**Molecula’s Unique Approach—**

Molecula’s feature store is designed and created to be continuously aware of all data values at all times. The result is instant, “machine-native” access to all values of the data without moving, copying, or federating the original data. Dynamic JOINS and complex analyses are reduced to bitwise computations which return results orders of magnitude faster than traditional methods.

Historically, feature extraction techniques have been used by machine learning practitioners because of the massive workloads they face. With Molecula, any company that has a large scale, time sensitive data need can now benefit from this fundamentally superior technology.

**Integrates with Existing Architectures—**

Since Molecula is implemented as an overlay, the original data can remain in the format and systems in which it presently resides. Molecula’s fully-functional feature representation of the data is at least an order of magnitude smaller in size than the original data, so wherever or however the representation is stored, moved, or updated, it will require fewer resources to manage and access.

The diagram below illustrates how data is ingested and integrated through taps that are deployed once to populate feature tables in the feature store. From that point on, the state of the data is automatically updated in the feature tables as it changes. The right side of the diagram shows that data is continuously and instantly accessible through secure, highly available, low latency feature sets to all of the applications using traditional interfaces such as SQL.
Molecula In Action—
Below are some of the ways Molecula’s feature store enables customer insights and analytics. What will you do with continuous, real-time analysis of your most important data?

**DRIVE EFFECTIVE MARKETING CAMPAIGNS**
Craft custom marketing messages to specific audience segments created from previously unknown common traits.

**IDENTIFY CROSS-SELL AND UPSELL OPPORTUNITIES**
Discover behavioral drivers to develop the most effective marketing mix and sales opportunities.

**POWER ANALYTICAL CUSTOMER-FACING FUNCTIONALITY**
Increase the value of products by offering rich, real-time insights to customers.

**Take Action—**
Implementing a feature store is one of the most important ways to prepare an organization for the future. Contact us today to learn more about how Molecula’s feature store will transform your business. Ask us how you can unlock real-time value and actualize customer insights & analytics use cases never possible before.

“The likelihood of achieving above-average profitability is almost 19 times higher for customer-analytics champions as for laggards.”

- MCKINSEY REPORT

**DATA AT THE SPEED OF THOUGHT™**
Molecula is an enterprise feature store that simplifies, accelerates, and controls big data access to power machine-scale analytics and AI.

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