

superwise.ai

# AI Assurance for Food Delivery Services

Use Case





# Not all heroes wear capes but they are all superwise!

Food delivery services have become a must for restaurants globally, especially since the COVID-19 pandemic and the series of social distancing requirements. For leaders in the field, machine learning is essential as efficiency is their main business differentiator.

As such, they use AI for a variety of use cases: to predict how long it will take for a carrier to move from A to B, estimating the time it takes to prepare a dish for a specific restaurant, as well as more generic use cases related to e-commerce applications such as recommendation sorting, or customer lifetime value.

Answering the question: “how many orders can a carrier deliver within an hour?” is a starting point for customer satisfaction, for carrier satisfaction, and for the profitability of the company.

**In this environment geared towards optimizing customer experience, and dominated by high velocity, high seasonality and granular changes, data science teams need to make sure that they are one step ahead of a negative review.**





# How fast can you tell that your models are going south?

From time series analysis and forecasting, to customer analytics and personalization, or recommendations engines, data science and engineering teams manage multiple models. Yet, not all models are created equal, especially in the food delivery space where ETA or courier route predictions have an immediate impact on customer satisfaction. Indeed delivering a dish within 45 minutes when you estimated 30, may mean having to reimburse the customer!

**To make sure customers and carriers stay happy, data science and business teams alike need to be able to achieve high visibility and control over the health of their models and their data in production, in real-time.** For these business critical models, if the performance or accuracy decays, you need to find this out proactively. Not once the business has been impacted and it is too late!

More to the point, those business critical models are often used for different cities or different use cases and may require high granularity to be able to understand how subpopulations behave and impact the predictions.

As such, looking at single high level metrics such as accuracy or mean error, may no longer be enough to assure that the models deliver on their promises.



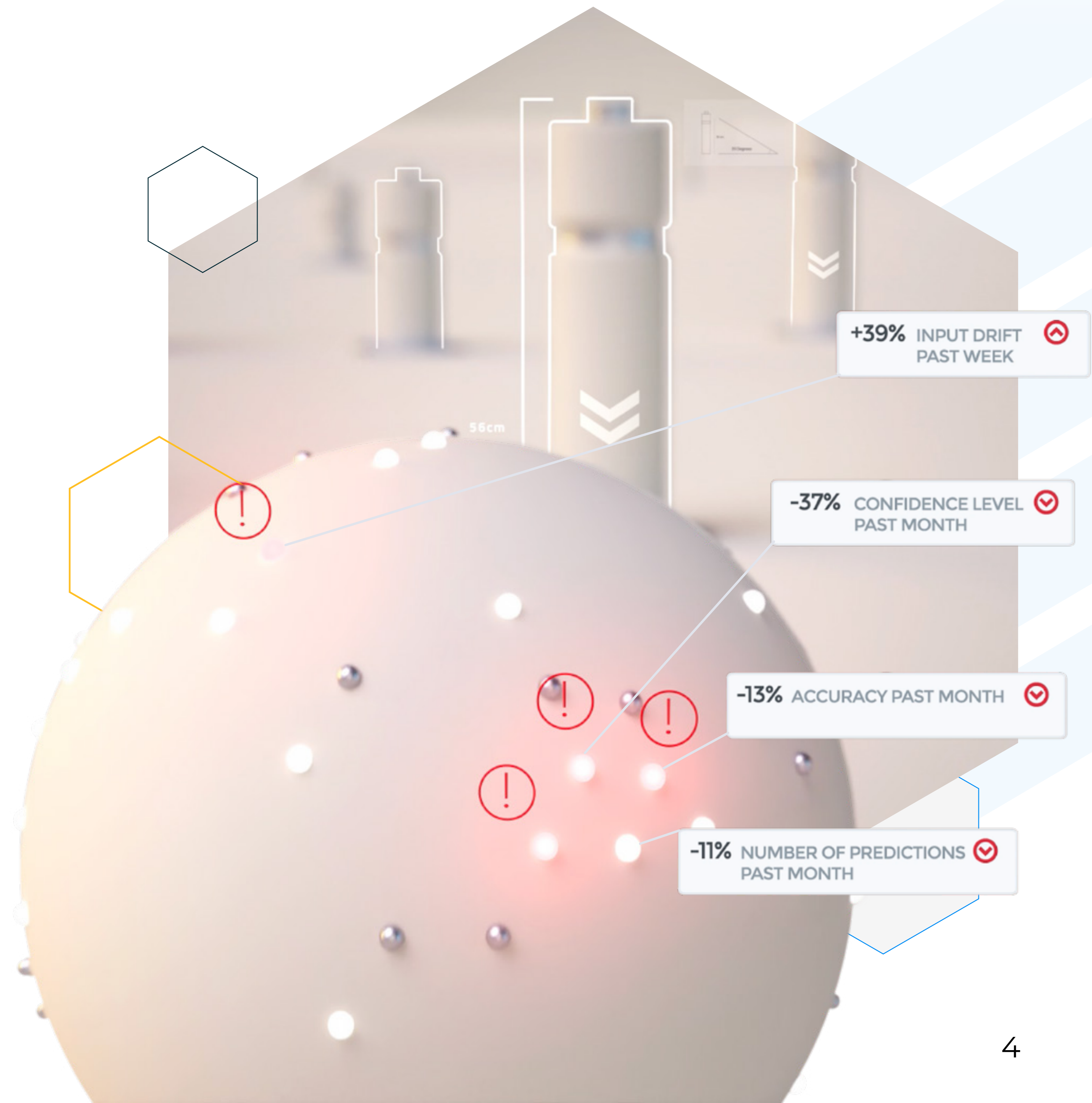
# How fast can you tell that your models are going south?

Indeed, business customers in Paris may have very different expectations from the ones in Riga, and both the data science and business functions need to be able to understand how the data and the models behave for their specific subgroups. And even if you are using a different model from each city, it is paramount to understand how distance, delivery types, carrier groups and weather may impact the quality of your predictions. Being able to monitor all these subgroups separately will help you keep a close eye on your models in production.

In this context, monitoring the health of the models, beyond simple data pipeline consideration is a must but many homegrown solutions fail to give the right level of detail and granularity.

Besides, the labour intensive tasks related to monitoring and maintaining different models often come at the expense of the actual model optimization.

**AI stakeholders need to be empowered with the right set of tools to identify drifts and changes, their severity, and understand how to fix them at the right time. As such, a robust monitoring solution is needed to gain the right insights, not only at the right time, but also at the right level, to have a proper business impact.**


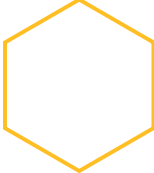
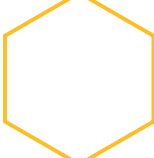


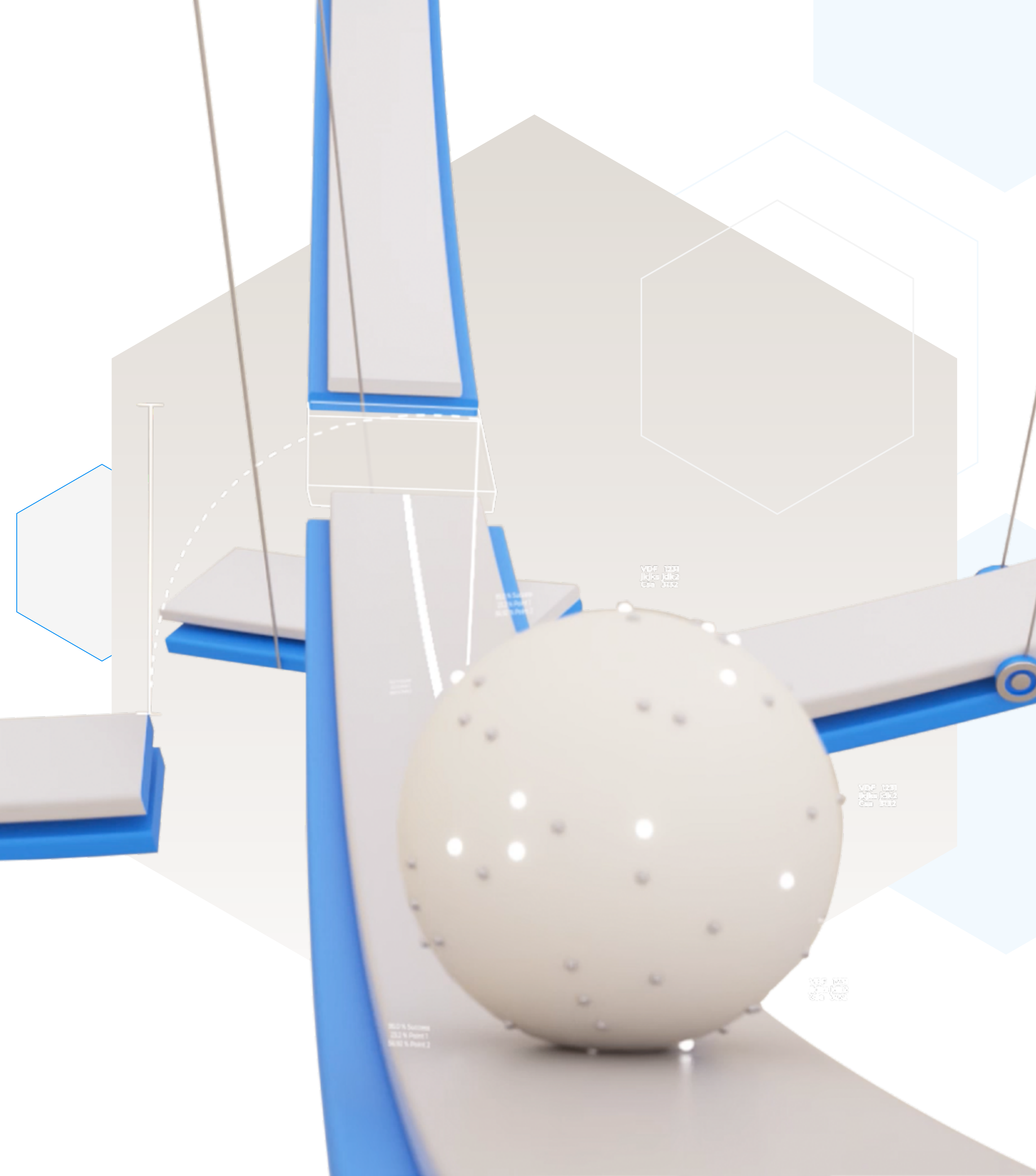


# You better be superwise!

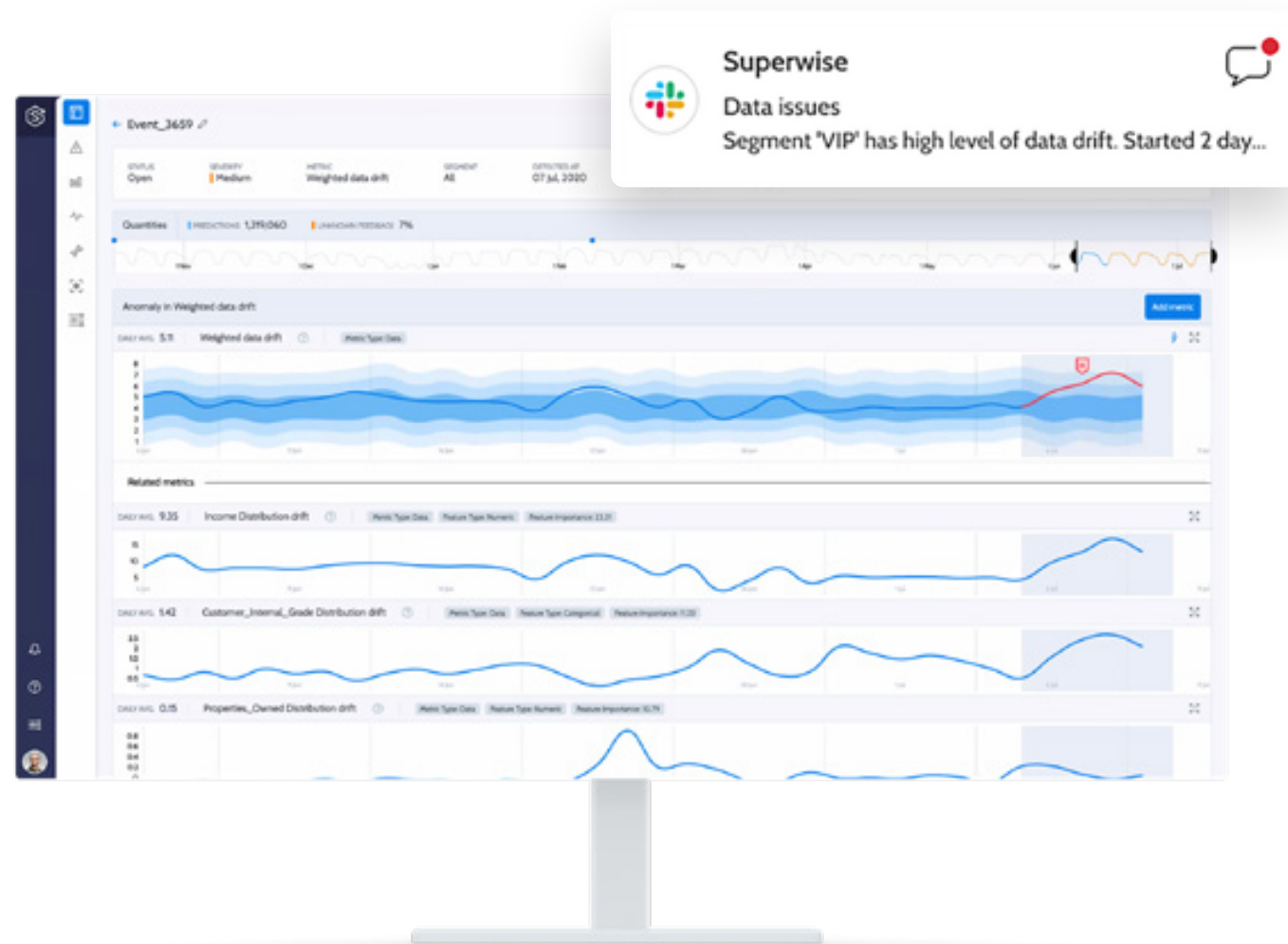
Superwise offers a unique solution to monitor, analyze and optimize your models in production and give more visibility and control to the data science and engineering teams.

Benefits:

-  Catch drifts at the feature level before they impact your business.
-  Gain a better understanding of the behaviour of your predictions in production.
-  Benefit from production-driven insights to optimize models and perform smarter retraining.

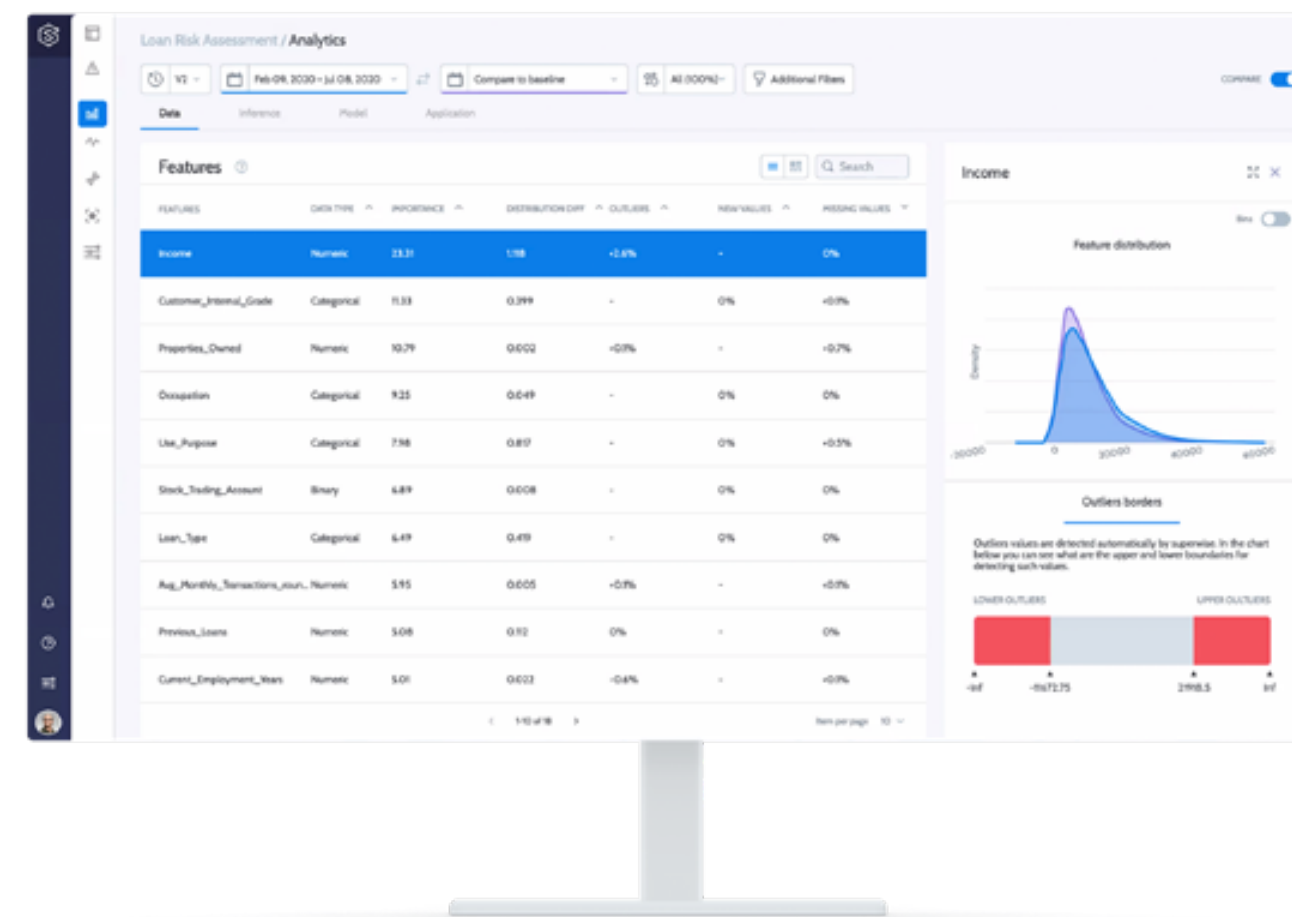


# Monitor, analyze & optimize All your models



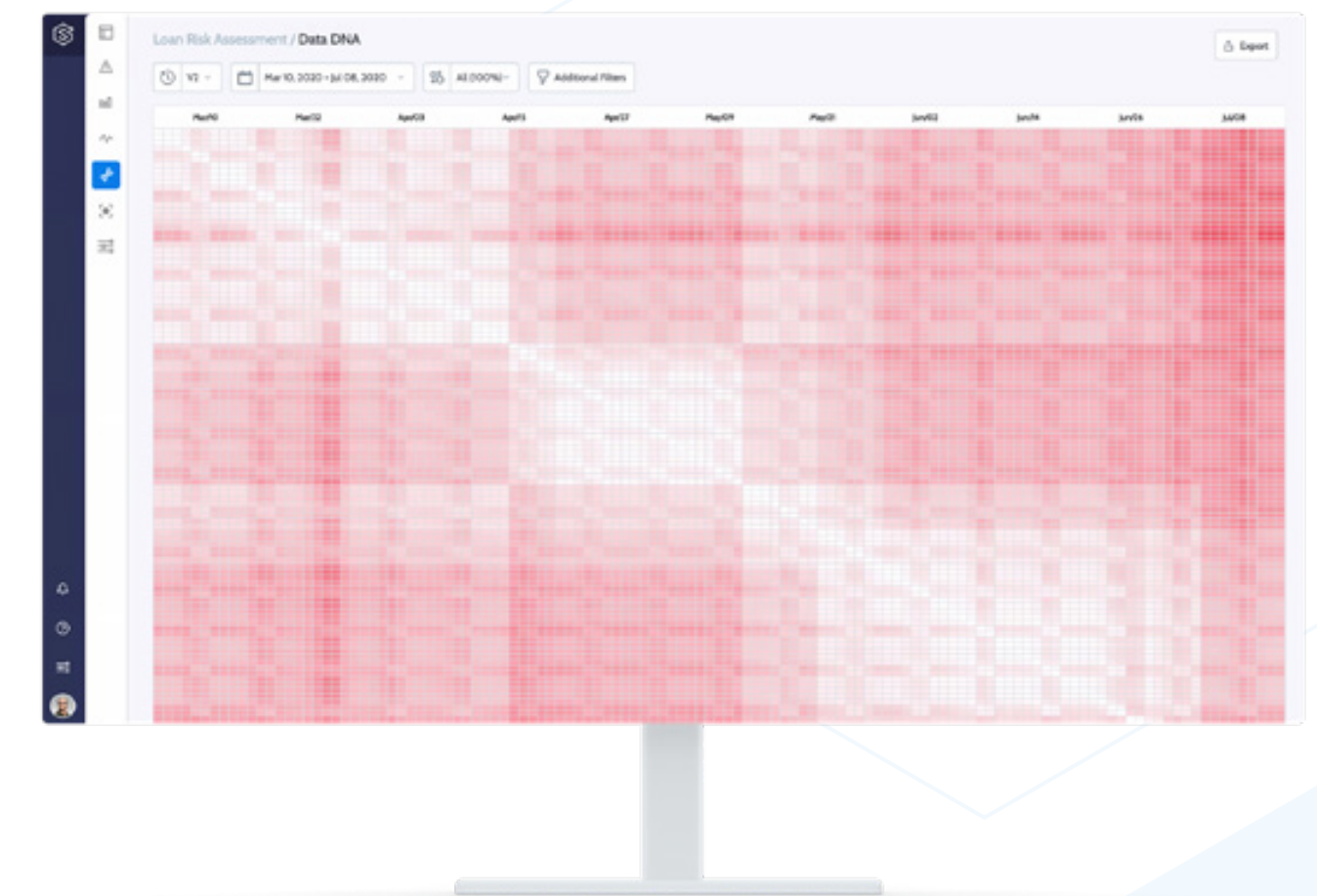
## Know exactly when your models misbehave and why

With real-time alerts on anomalies: data and model drifts, performance issues, correlated events, weak spots, and automated root-cause analysis to severely reduce the time needed to detect and fix issues.



## Achieve full observability of your models in production

With a full analytical suite to slice & dice your data in production and discover trends. Thanks to out of the box and customized model KPIs, you can have a clear view of what is happening, track and predict performance over time and versions. The solution also enables you to detect underperforming segments, and pinpoint changes at a granular level.



## Optimize models with production-driven insight

Thanks to unique views of your data and models in production, and innovative capabilities to compare models' versions, you can define smarter retraining strategies and benefit from better models.



# About Superwise

As more businesses rely on AI models to boost their impact and their bottom-line, the need for managing, monitoring and optimizing the real-life behaviour of these models grows.

Superwise.ai is the company that monitors and assures the health of AI models in production. Already used by top-tier organizations, Superwise.ai monitors millions of predictions daily to eliminate the risks derived by these models' black-box nature: bad decisions, unwanted bias, and compliance issues. Their AI assurance solution acts as the one source of truth for all the stakeholders, and empowers data science and operational teams with the right insights to scale their use of AI by becoming more independent and agile, and gain confidence in their models' operations.

Implemented use cases include Customer Lifetime Value (CLV) predictions, fraud detection, lead scoring, underwriting, credit risk, and more.

Gartner recently named superwise as a 2020 Cool Vendor in Enterprise AI Governance, recognizing it for its innovative technology and approach

[www.superwise.ai](https://www.superwise.ai)



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