# The 19 Best AI Use Cases in 2023

**AI use cases you can implement to improve business outcomes in 2023.**

The recent advances in deep learning neural networks are pushing beyond what we thought AI technology could do.

Heck, with [DALL-E 2 winning art competitions](#) and [ChatGPT passing anything from New York's Bar exam to Advanced Sommelier exams](#), modern AI technology is performing better than the average Joe.

Which begs the question: How can AI solutions be used to improve business outcomes?

In this article, we'll explore the AI use cases that help you streamline, automate, and grow your business in six business areas:

1. DataOps
2. Sales
3. Marketing
4. Logistics & inventory management
5. Accounting & finance
6. Customer support

Free up your time for more strategic initiatives by using AI to power your next data project.

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## AI use cases in DataOps

Artificial intelligence applications rely on teaching AI algorithms to spot patterns in big data. An area that produces a lot of data is, not ironically, data operations.

Every table, ETL pipeline, transformation, and data analysis we do uses data

and produces (meta)data from which machine learning (ML) algorithms can learn.

Companies have started to use these algorithms to improve their engineering processes. For example, [ChatGPT can write boilerplate JavaScript code](). And GitHub has launched its [Copilot to suggest the next line in your scripts]().

But this is just scratching the surface of what AI systems can do with data.

Keboola - the data stack as a service platform - [is launching a private beta AI program]() that will automate a wide variety of DataOps activities with artificial intelligence:

1. Improved error messages

DataOps error messages are often hard to read, non-intuitive, and leave you scratching your beard to figure out what you should do to resolve them. Keboola is introducing a natural language processing engine that will 1) make the error messages more human readable, and 2) learn from errors to suggest how to best resolve the problem.

2. Automated data governance

No one likes to waste time documenting tables and other data assets. But unless we do, we are pushing confusion and mess downstream to data consumers. Keboola is introducing intelligent agents based on AI technology that generate documentation with one click.

3. Streamlined impact analysis

We often rely on governance policies and use data lineage to determine who did what and where. So if we need to change a piece of the code, we can manually inspect how this will impact the entire system. With the use of AI, Keboola will cut the time for such impact analysis. By generating knowledge graphs from the metadata produced, Keboola's recommender system will be able to guide you in the execution plans. This feature will suggest where you need to add code and how this will impact the entire system.

## AI use cases in sales

Machine learning techniques can be used to improve a wide range of sales practices.

4. Lead Scoring

AI can help sales teams prioritize their leads based on the likelihood of a lead making a purchase. By analyzing historical customer data, AI algorithms identify patterns that indicate which leads are most likely to convert. This helps

sales teams focus on those prospects that show the best potential.

5.  Personalized Product Recommendations

AI can provide personalized product recommendations to customers based on their purchase history, browsing behavior, and other data points. Sales teams can use this data to upsell customers with the products that most likely pique their interest.

6.  Sales Forecasting

AI can analyze historical sales data and other external factors, such as seasonality and market trends, to predict future sales volumes. Sales leaders can use the forecast to strategically plan sales activities around predicted sales.

Case study: Use AI to recommend the right product

Česká spořitelna, the biggest Czech retail bank, uses Keboola and AI tools to automatically generate credit risk scoring for each of their bank customers. Credit risk scores are used to determine what type of loan a customer can apply to. This empowers the bank's employees with information on what products can be recommended to a given customer and cuts the sales research from days to minutes.

[Check how Keboola helps the biggest Czech bank build data products in days instead of weeks.](#)

## AI use cases in marketing

Machine learning algorithms have long been used to improve marketing communication.

7.  Content creation

AI can help businesses create engaging content with simple prompts. From self-writing tweets to generated visual images, AI can be your in-house production team assistant, serving you content at scale with a couple of keyboard strokes.

8.  Personalized communication

By analyzing historical interactions data, AI solutions can determine what messages resonate with your target audience and tailor the communication to different groups (personalization) or even to specific individuals (hyper-personalization).

9.  Ad optimization

AI can help businesses optimize their ad campaigns by analyzing data on audience behavior and engagement. Advertising platforms like Google, Facebook, Linkedin, and Bing already do that. But if you export and own the data, you can create AI algorithms that can recommend budget distributions across the omnichannel based on ad performance predictions.

Case study: Use AI to personalize marketing messages at scale

Olfin Cars, a leading seller of new and used cars in the Czech Republic, used Keboola and Marketing BI to collect historical data on purchases, competition, and online behavior and fed that data into ML algorithms. The AI algorithms predicted the marketing messages that were more likely to convert prospects into customers on their website.

The result? A 760% increase in sales in a single quarter.

[Find out how Olfin Cars skyrocketed their growth with Keboola.](#)

## AI use cases in logistics & inventory management

Supply chain management is notoriously hard. However, companies using artificial intelligence can better optimize their logistics and inventory management:

10. Demand forecasting

Customers' demand can be fickle. It follows seasonality trends as well as changes in the pricing on the market. However, historical data can help you bridge the gap between your insights and accurate forecasting by building demand forecast models. Statistical models allow you to better anticipate the rise and fall in demand and negotiate with your suppliers and distributors accordingly. This gives you a better understanding of the future business as well as allows you to put your budget to better use.

11. Inventory optimization

Unexpected freight at rest can incur extra costs. If you are in the business of perishable goods or are contractually bound by penalties upon missing delivery deadlines, inventory mismanagement can cut into your margins and bleed your reserves. Machine learning techniques can predict the optimal level of inventory for your warehouse. AI applications can even take the timing constraints as input parameters, to determine the optimal order of item storage and shipping, according to your FIFO or LIFO policies.

12. Route optimization

AI can help businesses optimize their delivery routes, by analyzing data on

traffic patterns, weather conditions, and other factors. This can help businesses reduce transportation costs, improve delivery times, and reduce carbon emissions.

Case study: Use AI to find the optimal delivery cargo

Rohlik, the e-commerce unicorn, helps connect food producers to retail consumers via its food delivery platform.

One of the main challenges for Rohlik is delivery optimization - finding the optimal cargo capacity for their delivery fleet to fulfill orders at the right time. Send out a half-empty cargo and you're wasting resources. Send it too full, the delivery will take too long.

Rohlik uses Keboola and real-time machine learning algorithms to predict the number of bags that will be used to pack a customer's order to plan courier routes as efficiently as possible.

[Read the full story of how Rohlik uses Keboola to grow its billion-dollar business.](#)

## AI use cases in accounting & finance

Artificial intelligence algorithms have been used in a wide range of applications within accounting and finance.

13. Fraud detection

AI solutions can help businesses detect and prevent fraudulent activities by analyzing large volumes of data and identifying patterns that indicate fraudulent behavior.

14. Credit risk assessment

AI tools can help financial institutions assess the credit risk of borrowers, by analyzing data on their financial history, credit score, and other factors. This can help institutions make more informed lending decisions and reduce the risk of default.

15. Invoice processing

AI can help businesses automate their invoice processing, by extracting data from invoices and automatically processing payments. Computer vision deep learning neural networks are especially good at reading invoice details from different data sources. This can further reduce the costs of administrative tasks and improve payment accuracy.

16. Automated bookkeeping

AI can help businesses automate their bookkeeping processes, by automatically categorizing transactions, reconciling accounts, and generating financial statements. This can help businesses save time on data entry and reduce errors.

Case study: Use AI to spot fraudsters

A Keboola client working in e-commerce suspected fraudsters infiltrated their platform.

The challenge? Because they're one of the top e-commerce platforms in Europe, they were overwhelmed with data, making the task seemingly impossible. Their company processes over 221M orders every month in over 50 countries across the globe, while consistently delivering orders in under 30 minutes.

Finding fraudulent data in this amount of transactions is like searching for a needle in a haystack.

The client used Keboola to build a fraud detection algorithm based on anomaly detection, cluster analysis, natural language processing (NLP), and predictive algorithms.

The result? Keboola helped identify $25.000 of fraudulent activity in the first fraud detection iteration.

[Learn how you can build your own fraud detection algorithm to save your hard-earned money](#).

## AI use cases in customer support

Improving the customer experience starts with stellar customer support. When customers get stuck, solving their problems fast will increase their loyalty. Happy customers are also more likely to spread the word. Here is how AI applications can improve customer support.

17.  Improved customer service

AI-powered chatbots can provide 24/7 customer support, answering frequently asked questions and resolving issues quickly and efficiently, even when human workers are asleep.

18.  Sentiment analysis

AI can analyze customer interactions and social media posts to identify trends in customer sentiment, allowing businesses to quickly address issues and improve customer satisfaction.

19. Customer service automation

AI can automate routine customer service tasks, such as order tracking and delivery status updates, reducing response times, improving efficiency, and improving the customer experience.

Case study: Build an AI system for human resources in 3 months

A fantastic customer experience is not just about customer support via a chatbot. It is also about managing the customer-facing workforce.

Hari knew about the importance of workforce management for improving customer satisfaction so they built an AI system - Harri IQ - that empowers users with self-service insights at their fingertips without the need for any assistance from engineers.

Hari IQ uses Keboola to build predictive forecasting of intelligent scheduling, customer satisfaction, and worker performance and embeds AI into every aspect of workforce management.

The punchline? Hari's team built Hari IQ from scratch in 3 months by relying on Keboola, Snowflake, and ThoughtSpot.

[Check how Hari helps manage customer satisfaction and the workforce lifecycle with AI.](#)

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## How can you benefit from applying AI to your business processes?

AI solutions offer many advantages to growing businesses:

1. Increased efficiency. AI can automate repetitive tasks, allowing businesses to free up time for more strategic initiatives. This can lead to increased productivity and faster turnaround times.
2. Improved accuracy. AI can analyze large volumes of data with high accuracy, reducing the risk of errors and improving decision-making.

3. Cost savings. AI can help businesses save costs by automating processes, reducing the need for manual labor, and optimizing resource utilization.
4. Perfected customer experience. AI can help businesses provide personalized experiences to their customers, based on their preferences and behavior.
5. Competitive advantage. AI can help businesses make data-driven predictions about future trends, enabling them to make more informed decisions and stay ahead of the competition.

## Get the most out of your AI projects with the right tools

[More than 80% of AI projects fail](#). Set yourself up for success from the get-go by picking the right AI solution for the job.

Keboola has a proven track record of turning your data into AI solutions that delight across multiple verticals: from startups to enterprises, from the financial sector to the healthcare industry.

Keboola can help you:

- Consolidate and validate your historical data in days instead of months.
- Build sales and financial forecasts.
- Personalize marketing communication at scale.
- Optimize your inventory and delivery routes.
- Mitigate risks - detect fraudulent activities and assess credit risks.
- Automate and streamline all your data operations.
- Turn your machine learning algorithms into easy-to-consume data products.

Curious how you can turn your data into the next AI success story with Keboola?

[Contact our data experts to find out](#).

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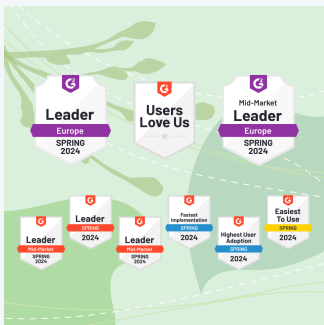Have our newsletter delivered to your inbox.

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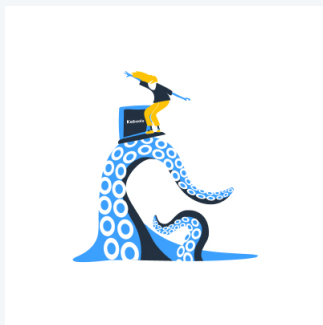### Keboola Achieves G2 Leader in Spring 2024

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