

7 Generative AI Use Cases

Written by Coursera Staff • Updated on Apr 11, 2024

Discover seven examples of generative AI use cases to provide better customer service, meet business goals, and manage growth, including Wendy's, CarMax, SixFlags, GE Appliances, and more.



Generative AI, or artificial intelligence, can generate unique text or image results based on large sets of training data in response to human prompts. The technology remains a much-discussed trend partially because of the lightning-fast innovation the industry is demonstrating. The jump in generative AI capability from the beginning of 2022 to the end of 2023 is remarkable and spurred on by competition between companies to offer the best generative AI solution.

But what is generative artificial intelligence, and what are some examples of how businesses use it in the real world? Keep reading to discover seven different examples of generative AI use cases.

What is generative AI?

Generative AI is a form of artificial intelligence that can create new text, image, or audio content in response to written prompts. For example, you might ask a generative AI to write you an essay, create a menu, or provide an illustration.

The technology works with machine learning using unsupervised learning methods. Engineers train generative AI with a massive data set to help it understand connections and make predictions. We can use natural language to make requests, called prompts. The artificial intelligence will understand what the user is looking for and return a novel result that looks similar to other AI examples in its training materials.

Who uses generative AI?

Companies and organizations from diverse industries are exploring the possibilities of generative AI in their industry. According to Gartner, 38 percent of polled executives use generative AI for customer experience, 26 percent for revenue growth, 17 percent for optimizing costs, and 7 percent to support business continuity [1].

- *Customer experience.* Chatbots and digital customer assistants can provide massive-scale customer service at any time of day, offering customized service to clients and greatly reducing the number of customer service agents required to do the same job.
- *Revenue growth.* You can use generative AI to analyze the market to identify growth opportunities or to help you position your company to grow faster. For example, you could use generative AI to increase revenue through faster product development.
- *Cost optimization.* Generative AI can help reduce business expenses without sacrificing value. You can automate and refine processes with generative AI, reducing expenses by reducing labor.
- *Business continuity.* You can use generative AI to plan for an unexpected future, plan for risk management, and build resilient systems that can weather any storm, metaphorically or otherwise.

Generative AI use cases

How specific companies implement this new technology into their business operations may help you better understand how companies use generative AI for customer experience, risk management, revenue growth, and cost optimization. Below, you will find examples from GA Telesis, Wendy's, CarMax, Six Flags, GE Appliances, Amgen, and Project Gutenberg to demonstrate how organizations with different goals and business models can use generative AI to their advantage.

1. GA Telesis

GA Telesis is a commercial aviation company that supplies commercial aircraft carriers with parts and services. As the company grew, it began to experience a much higher number of customer requests for assistance and quotes. To improve its ability to respond to customers and provide personalized customer care, such as creating quotes for service or responding to requests for aircraft parts, GA Telesis implemented Gen AI from Google Cloud.

The requests that GA Telesis receives are not standard and require research to determine the best options moving forward. Generative artificial intelligence can determine the client's exact needs and develop a plan of action tailored to the aircraft type, preferred condition, the location where the part is needed, and the logistics of getting the part to the location in time. With generative AI tools leading the way, GA Telesis can continue to focus on growth without sacrificing personalized customer care.

2. Wendy's

Fast food chain Wendy's estimates that 70 to 80 percent of their customers use the drive-thru lane to order food [2]. They face a challenge to provide excellent customer service

despite the complexities of the drive-thru ordering system, such as background noises and the number of menu choices available, which make it difficult to entrust such a complicated task as drive-thru orders to a chatbot. With new advances in generative AI, Wendy's can integrate this technology into the drive-thru experience to increase speed and accuracy for customers using this method of ordering food.

Generative AI can understand that when a customer orders a "milkshake," they mean to order a "Frosty" and will seamlessly complete the order. Wendy's goal is to have customers feel like they are interacting with a real associate. Wendy's calls the system FreshAI, and Wendy's hopes to expand the program into new channels for restaurants, such as mobile ordering or integrating with smart home devices.

3. CarMax

CarMax, one the largest used car retailers in the United States, has a reputation for innovating and personalizing the car-buying experience. CarMax has been investing in AI technology since at least 2021, and its teams are actively looking for ways to implement the new tech while staying in line with the company's goals and values.

One of the generative AI use cases CarMax implemented was to use ChatGPT to create website content about the vehicles they offer for sale. This includes generating summaries about the condition of the vehicles, summaries of customer reviews, or comparisons between different model years. The company reported that the task of completing this website content, which could have taken a team of content writers months or years to complete, took a matter of hours for generative AI.

CarMax also uses generative AI to scan and create images of its inventory for online sales, where honest, high-quality images can make a big difference in how the company and its customers complete the sale.

4. Six Flags

Six Flags Entertainment Company operates and manages Six Flags theme parks throughout the United States, Mexico, and Canada. Six Flags will begin using generative AI through Google Cloud's Vertex AI Conversation to supercharge their customer service. It will answer customer questions, offer personalized recommendations, and provide information about dining, rides, and accommodations based on customer preferences. According to a press release from Six Flags, embracing generative AI is part of the company's need to modernize its operations and improve the overall guest experience.

5. GE Appliances

GE Appliances offers smart home products—home appliances that provide additional functionality because of their ability to connect to the internet. To act as a hub for smart appliance activity, GE developed an app called SmarthQ. GE found other ways to use generative AI to add even more customer features. For example, Flavorly AI is a new feature that can help customers brainstorm recipes for dinner based on the ingredients present in their kitchen.

Generative AI technology can also help customers monitor and anticipate the maintenance of their connected devices. For example, a smart refrigerator will send an alert when it's time to replace the air or water filter. Generative AI offered in SmarthQ goes beyond that alert and allows users to chat conversationally about the replacement filter. GE Appliances is applying generative AI to help them deliver more personalized and helpful customer experiences.

6. Amgen

Amgen is a biotechnology company working to generate new solutions and create new medicines. A new form of research, called generative biology, brings the power of predictive and generative artificial intelligence to drug development to make the process much faster.

Amgen's research and development process involves looking for and engineering complex molecules that can bind to disease and lessen its effects. Instead of performing this intricate process by hand, generative AI can make recommendations for designing the molecule. In turn, it has the potential to substantially reduce the time required for the development process. Amgen also uses generative AI to help plan and execute clinical trials, complete regulatory filings, and improve pharmaceutical manufacturing maintenance and operation.

7. Project Gutenberg

Project Gutenberg is an organization dedicated to providing free ebooks. Michael Stern Hart founded the organization and is credited with inventing the electronic book. To further its mission "to encourage the creation and distribution of eBooks," Project Gutenberg is implementing generative AI to create audiobooks from written material [\[3\]](#).

The organization runs on volunteers who offer their time and services free of charge to create ebooks and audiobooks. Gen AI provides a solution to create high-quality recordings beyond the time and equipment capabilities of the volunteer team. The audio recordings also further Project Gutenberg's mission by making ebooks more accessible for people who prefer to listen to a book than read it or for people with visual impairments.

Learn more with Coursera.

To learn more about how you can apply generative AI use cases to your industry or organization, consider taking the next step with a course on Coursera. For example, you could enroll in Vanderbilt University's [Prompt Engineering for ChatGPT](#). Understand how to write effective prompts to get the answers you're looking for from generative AI models with this beginner-level course—it takes about 18 hours to complete.

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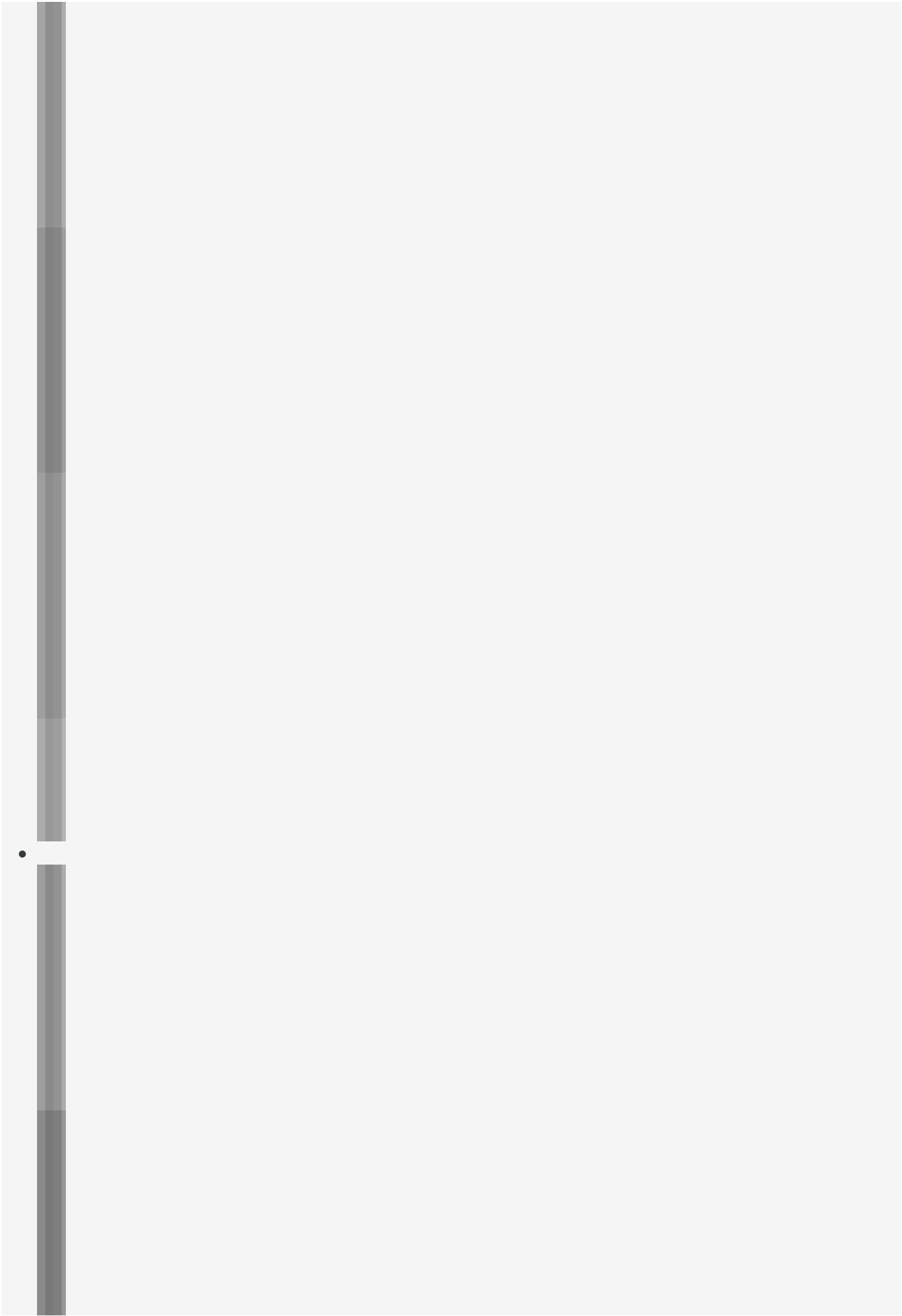
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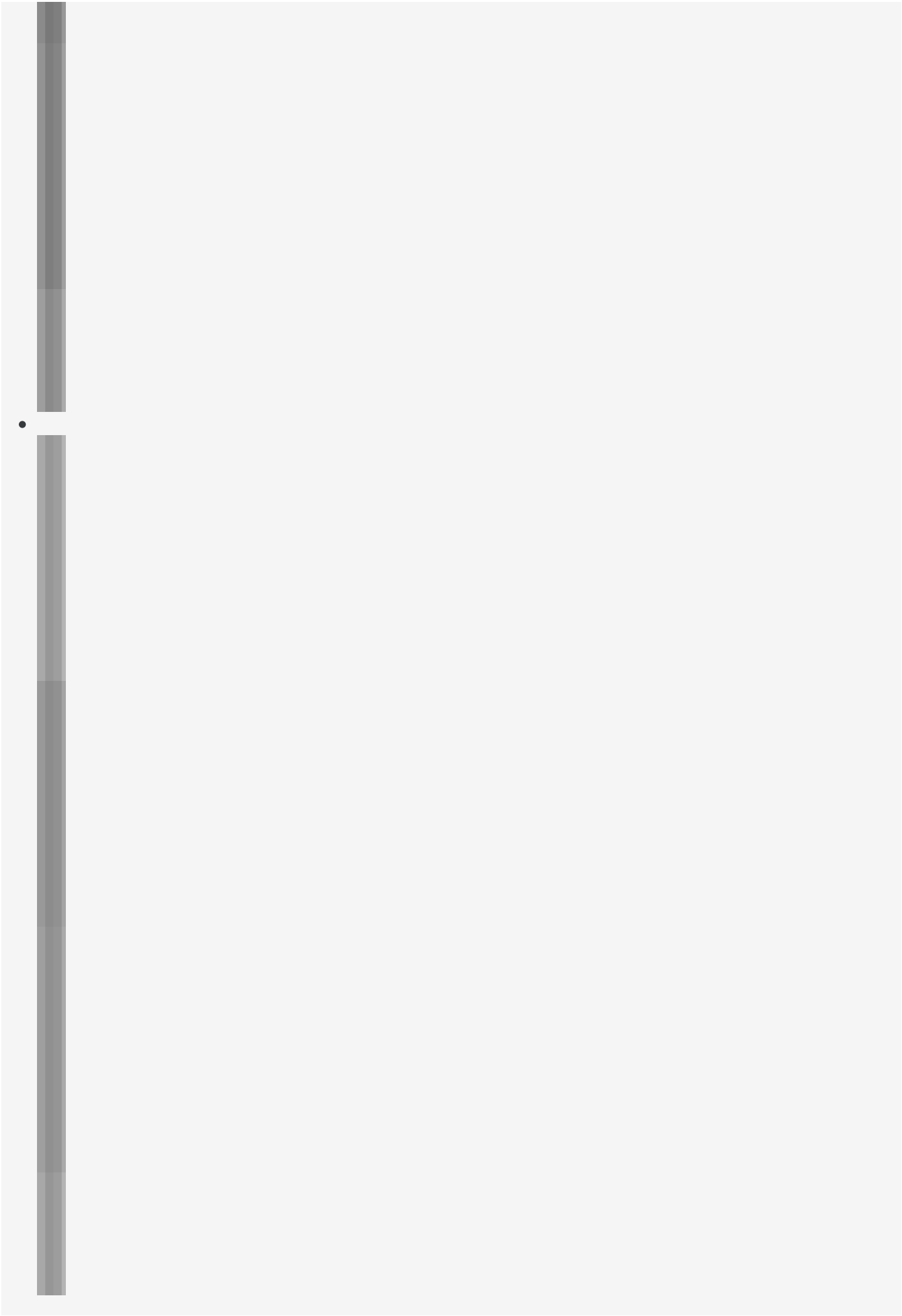
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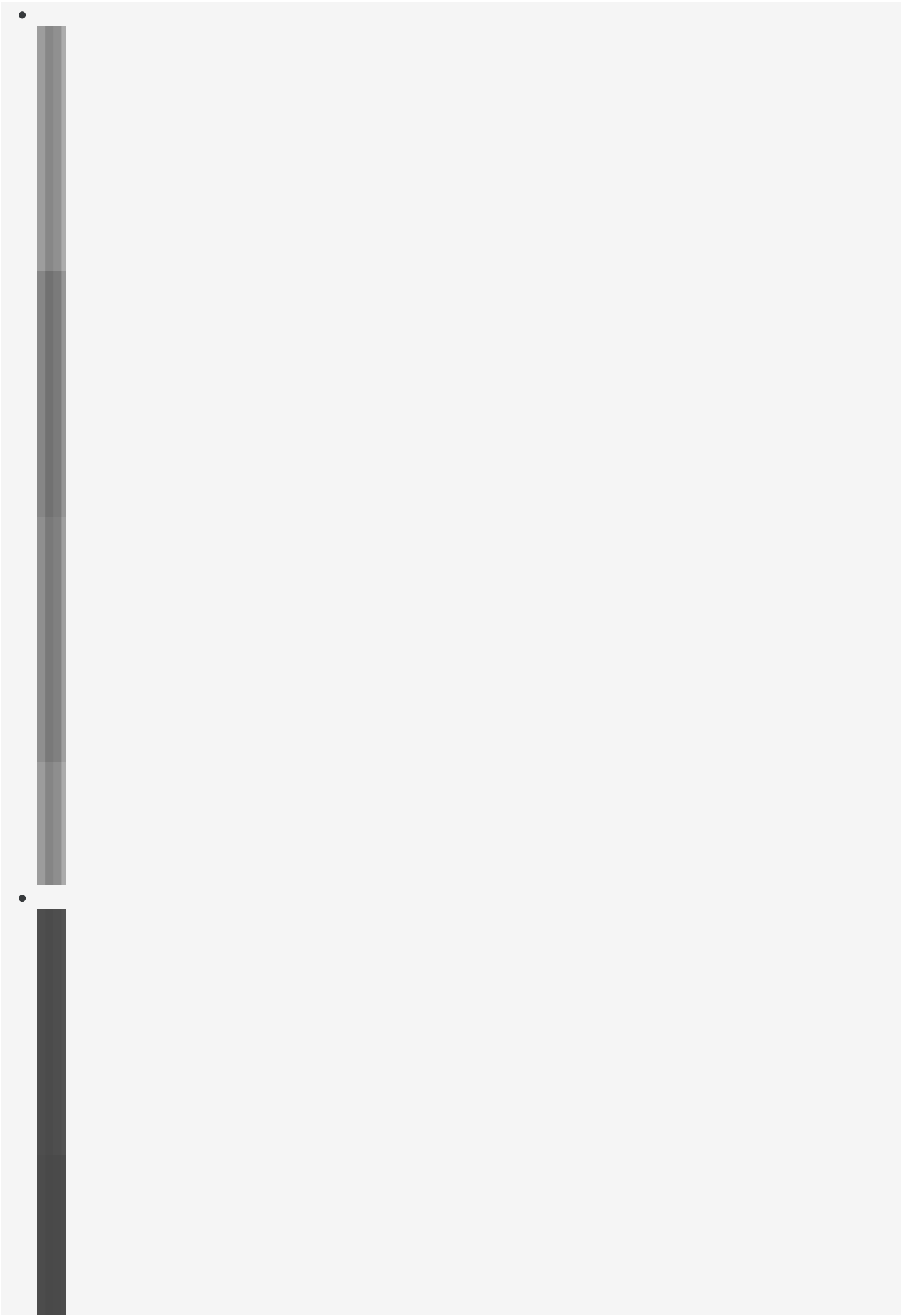
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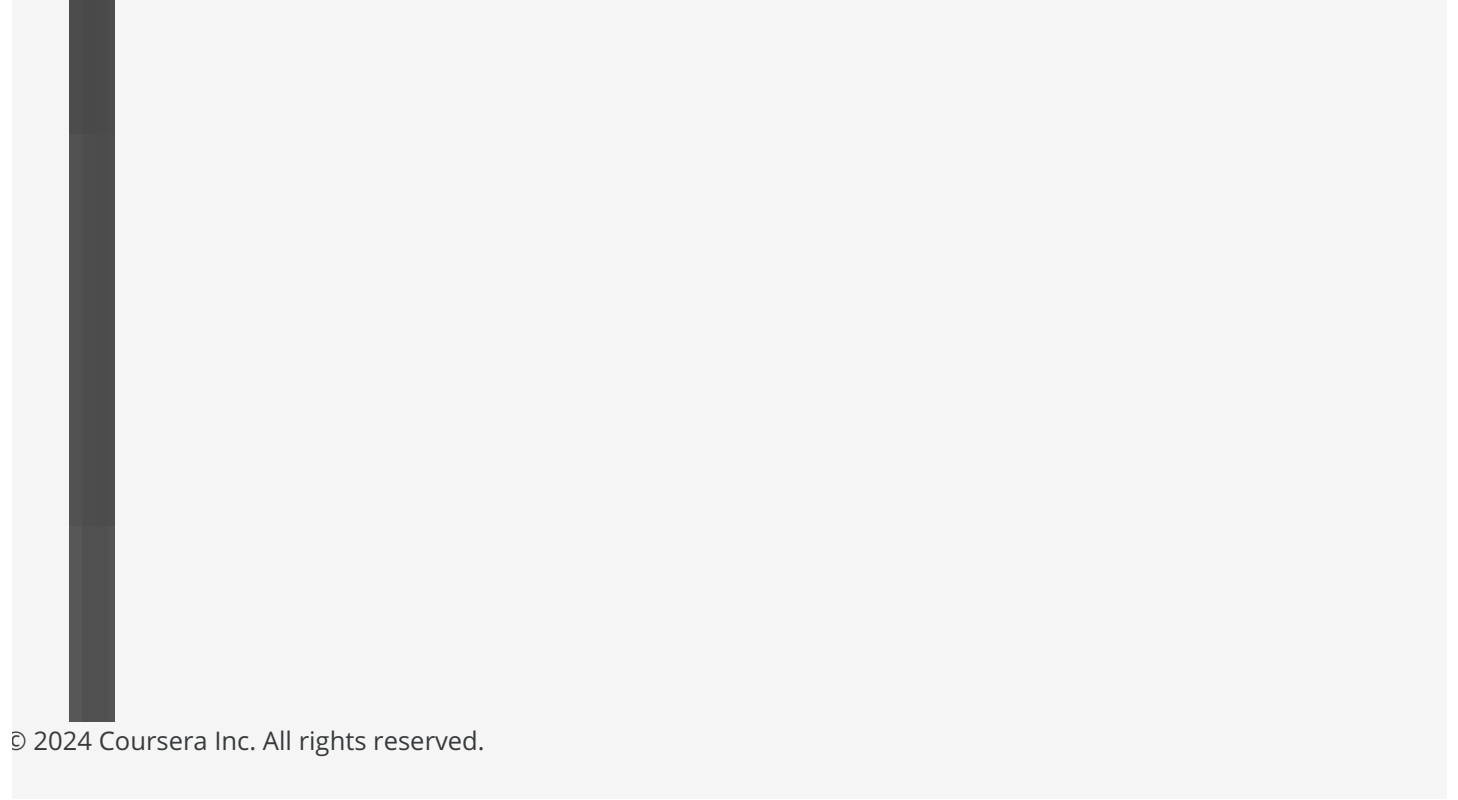
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