Artificial intelligence (AI) is a wide-ranging branch of computer science concerned with building smart machines capable of performing tasks that typically require human intelligence. While AI is an interdisciplinary science with multiple approaches, advancements in [machine learning](https://builtin.com/machine-learning) and [deep learning](https://builtin.com/machine-learning/what-is-deep-learning), in particular, are creating a paradigm shift in virtually every sector of the tech industry.

Artificial intelligence allows machines to model, or even improve upon, the capabilities of the human mind. And from the development of self-driving cars to the proliferation of [generative AI](https://builtin.com/artificial-intelligence/generative-ai) tools like [ChatGPT](https://builtin.com/artificial-intelligence/what-is-chatgpt%22%20%5Ct%20%22_blank) and Google’s [Bard](https://builtin.com/artificial-intelligence/bard), AI is increasingly becoming part of everyday life — and an area companies across every industry are investing in.

Broadly speaking, artificially intelligent systems can perform tasks commonly associated with human cognitive functions — such as interpreting speech, playing games and identifying patterns. They typically learn how to do so by processing massive amounts of data, looking for patterns to model in their own decision-making. In many cases, humans will supervise an AI’s learning process, reinforcing good decisions and discouraging bad ones. But some AI systems are designed to learn without supervision — for instance, by playing a video game over and over until they eventually figure out the rules and how to win.

Limited memory AI has the ability to store previous data and predictions when gathering information and weighing potential decisions — essentially looking into the past for clues on what may come next. Limited memory AI is more complex and presents greater possibilities than reactive machines.

Limited memory AI is created when a team continuously trains a model in how to analyze and utilize new data or an AI environment is built so models can be automatically trained and renewed.