20 use-cases of Artificial Intelligence / Machine Learning

1.Voice Assistant

Voice assistants are ubiquitous right now. Popular voice assistants like Apple’s Siri, Google Assistant, Amazon’s Alexa, etc. are paving the way to be part of people’s general conversation. Machine learning algorithm works behind all these voice assistants to recognize the speech using Natural Language Processing (NLP). Then, it converts the speech into numbers using machine learning and formulates a response accordingly.

2.Personalised Marketing

Using machine learning features, marketing industry segments customers based on behavioural and characteristic data. The digital advertisement platforms allow marketers to focus on the set of audience with relevant product influence. They understand customer requirements and serve with better product promotion accordingly.

3.Fraud Detection

Big companies involved in financial engagements and banks are using machine learning for fraud detection. This helps companies to keep consumers safe. Machine learning can also be valuable to companies that handle credit card transactions. The technology is trained to flag transactions that appear to be fraudulent based on certain criteria according to the company’s rules. By detecting such mishaps, companies can be prevented from falling prey to a big loss.

4.Self-Driving Cars

Self-driving cars are one of the fascinating technologies where machine learning is leveraged on a high-level. The beauty of self-driving cars is that all the three main aspects of machine learning namely supervised, unsupervised and reinforcement learning are used throughout the car’s design. Smart cars use machine learning features like detecting objects around the car, finding the distance between the car in the front, where the pavement is located, and traffic signal, evaluating the condition of the driver and scene classification. Machine learning can also give real-time advice about road conditions and traffic.

5.Predicting Behaviour

Organisations can use machine learning models to predict the customer’s behaviour based on their past data. Companies look for what people are talking about in social media and then identify those who are searching for the given product or service.

6.Healthcare

The value of machine learning in healthcare is its ability to process huge datasets beyond scope of human capability, and then reliably converts analysis of that data into clinical insights that aid physicians. Machine learning helps in planning and providing care, ultimately leading to better outcomes, lower costs of care, and increased patient satisfaction. Computer-assisted diagnosis (CAD), an application of machine learning can also be used to review the mammography scans of women in predicting cancer.

7.Chatbots

Machine learning is helping customer support by leveraging chatbots that give relevant reply to consumer’s queries. Using concepts of Natural Language Processing (NLP) and sentiment analysis, machine learning algorithms are able to understand customer’s need and the tone they say it. Then the system redirects the query to appropriate customer support person.

8.Physical Security

Machine learning plays a pivotal role in providing security at large gatherings. The technology provides an asset to help avoid fake alarms and spots things that human screeners may miss out in security at big public events.

9.Process Automation

Intelligent Process Automation (IPA) is the product of the convergence of AI and related technologies including computer vision, cognitive automation and machine learning. By bringing these technologies together under a single process, companies get a richer automation possibility, unlocking every business value for the enterprise. The machine learning algorithm can be used in automating error-free insurance risk assessment from manual data entry work.

10.Face Detection and Recognition

Using virtual filters on our face when taking pictures and using face ID for unlocking our phones are two applications of AI that are now part of our daily lives. The former incorporates face detection meaning any human face is identified. Face recognition is also used for surveillance and security by government facilities or at airports.

11.Pinterest

Pinterest’s LENS tool uses AI to identify objects in images. Take a picture of that beautiful maple dining set at your friend’s house using Pinterest’s LENS tool, and its AI-driven feature will help find similar tables.

12.LinkedIn

AI is used to help match candidates to jobs with the hopes of creating better employee-employer matches. On its talent blog, LinkedIn explains that they use “deeper insights into the behavior of applicants on LinkedIn” in order to “predict not just who would apply to your job, but who would get hired…”

13.Google Predictive Searches

When you begin typing a search term and Google makes recommendations for you to choose from, that’s AI in action. Predictive searches are based on data that Google collects about you, such as your location, age, and other personal details. Using AI, the search engine attempts to guess what you might be trying to find.

14.Music Recommendations

Music services use AI to track your listening habits. Then, they use the information to suggest other songs you might like to hear. For example, Spotify offers suggestions for new discoveries, new releases, and old favorites, based on your listening habits. Google Play also offers personalized music recommendations. Its AI-powered suggestions take into account factors like weather and time of day to offer music that can set the mood for activities.

15.Maps and Directions

When apps like Google Maps calculate traffic and construction in order to find the quickest route to your destination, that’s AI at work.

16.Ride-sharing Apps

Ride-sharing service Uber uses AI to determine how long it will take to get from your location to your destination. This lets you know when to expect a driver or food delivery.

17.Mobile Banking

AI is used by many banks to personalize your experience on their mobile apps. For example: Bill pay reminders, Pre-overdraft alerts, Transfer prompts.

18.Product Recommendations

Amazon and other online retailers use AI to gather information about your preferences and buying habits. Then, they personalize your shopping experience by suggesting new products tailored to your habits.

19.Email Filters in Gmail

Google uses AI to ensure that nearly all of the email landing in your inbox is authentic. Their filters attempt to sort emails into the following categories: Primary, Social, Promotions, Updates, Forums, Spam. The program helps your emails get organized so you can find your way to important communications quicker.

20.Education

Classrooms are evolving, thanks to AI. Teachers will always have a place alongside pupils, but AI offers a collaborative solution, freeing instructors to adapt lessons and learnings to a student’s specific needs. This stands to improve success outcomes while leveraging the unique strengths of man and machine. AI can also step in to automate much of the admin-level minutiae that clogs up a teacher’s day. Just as machines already grade multiple-choice exams, AI will soon have the capability of evaluating open-ended questions, making teachers more available to spend time addressing students’ challenges and concerns.

Another AI use case for education is translating course materials into additional languages for non-native speakers or those with different hearing and visual abilities, offering equitable access to educational resources. Tutors might also find some competition from AI systems. Parents and tutors alike just might find artificial intelligence shouldering much of the burden from pupils seeking advice on tough homework problems.