

ABOUT AI

AI is a branch of computer science that deals with making machine works like human. Artificial intelligence (AI) is intelligence demonstrated by machines, as opposed to the natural intelligence displayed by animals including humans. AI research has been defined as the field of study of intelligent agents, which refers to any system that perceives its environment and takes actions that maximize its chance of achieving its goals.

Within artificial intelligence (AI) and machine learning, there are two basic approaches: supervised learning and unsupervised learning. Supervised learning is a machine learning approach that's defined by its use of labeled datasets. These datasets are designed to train or "supervise" algorithms into classifying data or predicting outcomes accurately. Unsupervised learning uses machine learning algorithms to analyze and cluster unlabeled data sets. These algorithms discover hidden patterns in data without the need for human intervention.

Adversarial machine learning is a technique employed in the field of machine learning that attempts to make models more robust by exposing them to adversarial (and sometimes malicious) input. AI frameworks make the creation of machine learning/deep learning, neural networks, and natural language processing (NLP) applications easier and faster by offering ready solutions. Some of the most popular open-source frameworks include TensorFlow, Theano, PyTorch, Sci-Kit, Keras, Microsoft Cognitive Toolkit and Apache Mahout. Deep learning is an artificial intelligence function that imitates the workings of the human brain in processing data and creating patterns for use in decision making. Deep learning is a subset of machine learning in AI that has networks capable of learning unsupervised from data that is unstructured or unlabeled. Also known as deep neural learning or deep neural network. Machine learning is a branch of AI that allows systems to automatically process data and analyze for insights without being programmed explicitly. Machine learning is concerned with learning functions and patterns to do things like classification and prediction. NLP is concerned with information retrieval, text mining, question answering, machine translation, intent understanding, sentiment, emotion, tone extraction in text. It is a branch of AI which uses algorithms to train machines in responding to human conversations.

AI frameworks provide data scientists, AI developers, and researchers the building blocks to architect, train, validate, and deploy models, through a high-level programming interface. TensorFlow is a Python library that invokes C++ to construct and execute dataflow graphs. Scikit-learn is an open source, commercially usable AI library. Another Python library, scikit-learn supports both supervised and unsupervised machine learning.