

Machine Learning used in the field of Pharmacy



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ABSTRACT

The application of intelligence in technology is expanding to include machine-prevalent methods. It could reduce expenses and save time, all the while additionally enhancing our comprehension of how different formulations and process parameters interact. Artificial intelligence, which falls under the realm of computer science is concentrated on problem-solving through programming. It has evolved into a science of problem solving with applications in industries like technology, medicine and more. The research paper covers a range of topics such as discovering peptides from sources, managing and treating rare diseases ensuring proper drug adherence and dosage as well as discussing barriers, to implementing AI in the pharmaceutical industry. It also touches upon automated control procedures, manufacturing execution systems and using AI for treatment predictions.

Key words: Machine Learning, Pharmacy, Prediction, Artificial Intelligence, Drug, Robotics

1. INTRODUCTION

A subfield of computer science, which is historical is artificial intelligence (AI) concentrates on utilizing programming, for problem solving. Over time It now functions as a problem-solving tool. discipline with applications in fields such, as business, medicine and engineering. The primary objective of AI is to identify and address real world challenges effectively[5].

The field of intelligence deals, with the challenges in processing information. Offers a conceptual approach to tackle them. There is a theorem that relates to such an explanation, known as a method. reference [4]. In the realm of studying intelligence algorithms are. Employed to analyze learn from and comprehend data. Artificial intelligence encompasses methods, machine intelligence methods, the identification of patterns, clustering and similarity based approaches. It's an expanding field of research, with applications.


2. HISTORY

The integration of intelligence, specifically artificial intelligence (AI), within the technological the environment has altered strikingly over the years. Rooted in the realm of computer science, AI has surfaced as an effective instrument for problem-solving through programming. Its application spans varied industries, encompassing but not restricted to technology and medicine, where it holds the capacity to streamline processes, save time and costs, and enhance our comprehension of complex interactions such as those between various formulas and procedures parameters.

The historical trajectory of AI in technology dates back to the mid-20th century. The term "artificial intelligence" was coined in 1955 by John McCarthy, an American computer scientist, during the Dartmouth Conference. Early developments in AI were marked by ambitious goals and expectations, envisioning devices that could imitate humans intelligence. However, progress during the initial decades was gradual due to limitations in computing power and the complexity of modeling human cognitive processes.

A significant breakthrough occurred in the 1980s with the advent of expert systems, AI programs designed to emulate the decision-making abilities of a human expert in a specific domain. This era witnessed increased interest and investment in AI technologies, paving the way for applications in various industries.

The 21st century has witnessed a resurgence of interest in AI, driven by advancements in machine learning and neural networks. Big data, coupled with more powerful computing capabilities, has enabled AI algorithms to examine extensive quantities of


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