Sina Bari MD Shares 5 Upcoming Trends to Watch in Machine Learning

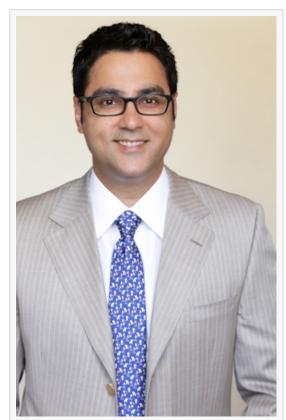*Five Machine Learning Trends Sina Bari MD Wants You to Pay Attention To*

OAKLAND, CA, USA, October 6, 2021 /EINPresswire.com/ -- AI and machine learning technologies have increasingly found their way into every industry, from advanced quantum computing and cutting medical diagnostic systems to consumer electronics and smart assistants.

With a background deeply rooted in tech, here are 5 machine learning trends [Sina Bari MD wants you to pay attention to](#).

1. Improving Cancer Diagnosis
A large number of the U.S. population suffers from at least one chronic illness, with cancers among the leading causes of death in many age groups. As a result, a significant part of medical care fees is being spent on treatments.

Machine learning can collect data on cancers, including histopathologic cancer, breast cancer and cervical cancer, to create a predictive model. This will help pathologists make a more accurate diagnosis.

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2. Developing New Medicines
Biopharmaceutical companies are greatly challenged by the high attrition rates in drug development, and collaboration with AI and machine learning industries could help overcome these challenges.

A good example is Atomwise: the company has created the first deep learning technology — Atomnet — for novel small molecule discovery. It has aided the invention of potential medicines for 27 diseases. Atomwise continues to work with institutes like Harvard and Stanford University

and biopharmaceutical companies.

3. Predicting Craniofacial Outcomes Through General Adversarial Networks (GANs)
Generative Adversarial Networks or GANs is an approach to generative modeling using deep learning methods. It uses a model to generate new, similar-looking data like image datasets and human faces. It can also translate text-to-image, image-to-text and perform 3D object generation, amongst others. Sina Bari MD hopes that advancements in this field will allow plastic surgeons like himself to show patients a glimpse of the results before undergoing surgery.

4. Advancing Unsupervised Learning Through Reinforcement Learning
Reinforcement learning (RL) is an aspect of machine learning that covers how software agents should take actions in an environment to maximize the reward. What makes reinforcement learning appealing is how much it feels like the learning we observe every day. For example, programmers at OpenAI, a company founded by Elon Musk, taught some agents to play hide-and-seek. After millions of simulations, the AI agents learned to manipulate their environment by themselves. This can be extrapolated to other scenarios where these multi-agent competitive environments can be used to influence learning without using supervisors.

5. Fraud Detection
Digital payments come with many risks, from fraudulent transactions to outright scams. Machine learning is ideal for effectively fighting deceitful financial factors, new account fraud and account takeover threats.

Machine learning could be used to train data by labeling every transaction as fraudulent or not. Companies can then use metrics like precision and recall to create a model that suits their risk profile while adjusting to false positive and false negative predictions.

Machine learning is being used extensively in many industries, including but not limited to healthcare. Sina Bari MD hopes that these potential breakthroughs change how surgeons and physicians interact with their patients and create a more rounded understanding of and improve satisfaction with results.

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