hackerearth

ARTIFICIAL INTELLIGENCE [AI] IN BUSINESS

01 REASONING

The ability to solve problems through logical deduction, e.g., financial asset management, legal assessment, financial application processing, autonomous weapons systems, and games.

02 KNOWLEDGE

The ability to present knowledge about the world, e.g., financial market trading, purchase prediction, fraud prevention, drug creation, medical diagnosis, and media recommendation.

03 PLANNING

The ability to set and achieve goals, e.g., inventory management, demand forecasting, predictive maintenance, physical and digital network optimization, navigation, scheduling, and logistics.

04 COMMUNICATION

The ability to understand spoken and written language, e.g., real-time translation of spoken and written languages, real-time transcription, intelligent assistants, and voice control.

05 PERCEPTION

The ability to infer things about the world via sounds, images, and other sensory inputs, e.g., medical diagnosis, autonomous vehicles and surveillance.

AI TRENDS IN VARIOUS SECTORS

HEALTHCARE

Medecision developed an algorithm that detects 8 variables in diabetes patients to determine if hospitalization is required

BiliScreen utilizes a smartphone camera, ML tools, and computer vision algorithms to detect increased levels of bilirubin in the sclera (white portion) of a person's eye, which is used to screen people for pancreatic cancer

FINANCE

Aidya and **Nomura Securities** use AI algorithms to conduct trading autonomously and robo-traders to conduct high-frequency trading

Mastercard uses Decision Intelligence technology to analyze various data points to detect fraudulent transactions

MANUFACTURING

Landing.ai claims to have created machine-vision tools to find microscopic defects in objects like circuit boards using an ML algorithm trained using tiny volumes of sample images

Collaborative robots or cobots can take instructions from humans, including instructions that the robot has not been previously exposed to, and work productively with them

RETAIL

Mckinsey shows the extent to which AI can be used end-to-end in the retail industry, from identifying customers to personalizing promotion and inventory management

Facial recognition software enables virtual agents to greet shoppers personally

Machine learning personalizes promotions to match the shoppers' profiles

Computer vision with deep learning identifies articles bagged by shoppers, allowing nonstop checkouts

ENTERTAINMENT

A familiar application of AI in everyday life is seen with services like **Netflix** or **Amazon** wherein ML algorithms analyze the user's activity and compare it with that of other users to determine which shows or products to recommend. The algorithms are becoming intelligent with time to the extent of understanding that a user may want to buy a product as a gift and not for himself/herself, or that different family members have different watching preferences

DATA SECURITY

Automatic exploit generation (AEG) is a bot that can determine whether a software bug that may cause security issues is exploitable. If a vulnerability is found, the bot automatically secures it

Deep Instinct, an institutional intelligence company, says that malware code varies between 2%-10% in every iteration and that its AI model is able to handle the variations and accurately predict malware files

AUTOMOTIVE

Tesla introduced TeslaBot, an intelligent virtual assistant integrated with Tesla models S and X, allowing users to interact with their car from their phone or desktop

Nvidia has partnered with **Volkswagen** to develop "intelligent co-pilot systems" in cars that will enable safety warnings, gesture control, and voice and facial recognition