

Artificial Intelligence (AI) and Its Application on Banking and Financial Services Sector in India – A Conceptual Study

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Abstract

The term "Artificial Intelligence" was coined in 1955 by emeritus Stanford professor John McCarthy (AI). He defined it as "the science and engineering of creating intelligent machines." AI technology is extremely beneficial to businesses. Every major country in the world is investing in artificial intelligence (AI) research and development. As a result of widespread adoption of digital technologies and significant advances in algorithmic capabilities, AI adoption has accelerated significantly in the last five years. To assess the most recent applications and advancements the current study focuses on understanding various applications of this trending technology on Indian banking and financial services with real-time examples through various literature reviews, articles, reports, websites, and newspapers. The study also focuses on understanding different artificial intelligence embedded applications in banking and financial services such as Virtual Assistants, Automation of Financial Reports and regulatory compliance, AI in combating Money Laundering, Analytics, Predictive Analytics, Robotic Process Automation, Facial Recognition and Bio Matrices, Document Digitalisation, Loan Processing using Artificial Intelligence and Humanoid Robots etc.

KEYWORDS: Artificial Intelligence, Banking, Financial Services, FinTech, Robotics

INTRODUCTION

John McCarthy, an emeritus Stanford professor, coined the term "Artificial Intelligence" (AI) in 1955. He described it as "the science and engineering of making intelligent machines." AI technology is extremely beneficial to businesses. It can also be termed "Intelligence Demonstrated by Machines." Artificial Intelligence is essentially the replication of Human Intelligence in machines. An accurate AI algorithm, like a normal person's brain, can gain knowledge from its own experiences. The Indian financial sector is gradually transitioning to an automated and artificial intelligence-driven sector. Every major country in the world is investing in AI associated research and development projects. AI adoption has accelerated significantly from the past five years as a outcome of the spread of digital technologies and major breakthroughs in algorithmic capabilities, giving access to richer data, and increasing computing power. (*Artificial Intelligence in Emerging Markets—Opportunities, Trends, And, n.d.*)

Initially machines resolving challenges were a hallucination. Until it was witnessed practically by 21st century in today's technological world. Artificial intelligence has become an essential part of day to day business operations. Indian Software-as-a-Service (SaaS) start-ups that equip artificial intelligence could create \$500 Billion of market value and almost 5 Million jobs by 2030 (*AI-Enabled Software-as-a-Service (SaaS)—The Next Frontier for Global S*, n.d.) The next spectrum of the digital revolution is being fostered by Artificial Intelligence (AI). India is in an impeccable position to lead the Artificial Revolution. While emerging markets thought globe are already using basic AI technologies to solve major challenges. Both Private and Public sector has started to scale new business models to develop new ways of delivering services and increasing local markets competitiveness. All of these solutions require innovative approaches to expand opportunities and mitigate risks associated. (Bhattacharya & Sinha, 2022)

Other than advancement and development in the areas of robotics, health care, aviation, education, medical diagnosis, transportation and businesses. Nowadays most significantly banks and financial institutions are enabling artificial intelligence to transform every aspect of their business by providing customize services, satisfy needs and improve customer experience. Artificial intelligence is most predominantly used in finance industry for Data Retrieval, Market Analytics, Insurance, Customer Service, Credit Scoring, Retail Lending, Process Automation, Risk Management and much more to strengthen the customer experience with improved technology in this digital era. (Mehrotra, 2019)

REVIEW OF LITERATURE

Chandrima Bhattacharya, Dr. Manish Sinha, 2022, The study made by the authors describes in its study that banking innovations integrated with artificial intelligence have the most predominant role to play in today's digitalized world. The paper also proposes the IT architecture and best practises for the digital banking sector. It is proven in this research, that if a customer uses a Chabot towards assistance, it results in greater customer satisfaction which results in better customer service. The Indian banks may use the different digitalized instruments that can benefit to expand their business operations further. The study also sheds light on digital advancements, where financial institutions and banks have to strengthen trust and loyalty to create better customer experiences in order to build their processes most effective and accelerated. Ultimately, AI technologies in the financial sector have the capability to rapidly modify both customer and employee experiences. The study concludes by saying that there is a significant relationship between offers or discounts and customer relationships. Financial institutions can collaborate with FinTech companies to reinforce digital banking in an economical and systematic manner.

Anirvan Vinod, Shreya Ghosh. 2021, The study highlights the use of contemporary digital technology with regards to traditional financial aspects that will create an equitable society and will be passed on to future generations. As per the study, finance being involved as one among major components of corporate and industrial sectors when associated with revolutionising technology can benefit the present market standards. The study sheds light on explaining artificial intelligence and its subsets. It also examines block chain applications and artificial intelligence in fintech and banking. In order to revolutionise the ever-growing financial aspects of the current financial world. Block chain and artificial intelligence have become the major push towards a digital world. The use of various technological

algorithms and cryptographic solutions will bring more transparency and security to financial innovation by eliminating traditional computerised problems. Study concludes by stating that FinTech combined with Artificial Intelligence and block chain technology will become crucial in the coming years, (Vinod & Ghosh, 2021).

Shiv Ranjan, Dr. Ruchika Gupta, Dr. Anish Gupta 2020, In their research titled "Artificial intelligence in Financial Acumen: Challenges and opportunities" discusses how individual processes Financial information through their Intelligence and make decisions. That will further help in development of training modules based on artificial intelligence which will reduce the biases and improve decision making. The study also highlights that implementation of artificial intelligence can increase business efficiency, render customized administration and can provide better objectives. The ambiguity move towards technology is rapidly impacting the traditional finance models also involving cyber security threats. The paper effectively highlights benefits, challenges and applications of AI technology in Finance, (Ranjan et al., 2020).

Ms. Ambika S, Dr. Mohammed Rafee, Dr. Mohamed Arif Pasha 2020, Artificial intelligence has exhibited numerous advantages for the Indian financial segment. study concentrates on the impact and role of artificial intelligence in Indian private banks. It also sheds light on AI and its changing role in the financial sector. The study has also made an strive to highlight the use of AI-related technologies in the top 10 leading private banks in India, to name a few: ICICI Bank, HDFC Bank, AXIS Bank, Kotak Mahindra Bank, YES Bank, and so on. The study has primarily focused on influencing of AI in the financial services of private banks in Bengaluru. AI can make the business more productive. Certain dangers, security, and vulnerability factors should not be neglected, (Ambika et al., n.d.).

Haripriya S, Dr. L. C Manikandan 2020, The authors' study highlights that human life will be technologically driven, with people relying on artificial intelligence embedded in systems for everything. Everything in the here after will be smart and connected to the internet. In today's context, machines will perform the most of the routine tasks most efficiently, resulting in AI transformation. The article addresses AI and its various subfields, such as machine learning (ML), Natural Language Processing (NLP), Robotics and autonomous applications. The study also sheds light on AI types, applications of AI in different sectors, and AI tools, (Haripriya & Manikandan, 2020).

STATEMENT OF PROBLEM

There are innumerable financial service providers in India who have integrated the by means of Artificial intelligence in their business processes. The idea for this study is to recapitulate the various fields of AI Applications in Indian Banking Financial Services and Insurance (BFSI) Sector by highlighting its role to upgrade business and to strengthen customer experience especially in the field of Financial Services and Banking.

OBJECTIVES OF THE STUDY

To identify different areas where artificial intelligence is extensively used in Banking Financial Services and Insurance (BFSI) Sector.

To study the role of Artificial Intelligence and its functioning in Financial Sector.

METHODOLOGY:

The present study is based on secondary data and its analysis. To be able to come up with different applications of artificial intelligence in banking and financial services, the different sources of data collection include articles, journals, news sources, websites, etc. and carefully examined to come up with conclusions. The dedicated case studies of different banks and their financial products were also analysed from dedicated banking websites.

ARTIFICIAL INTELLIGENCE, MACHINE LEARNING AND DEEP LEARNING

Artificial Intelligence: A computer algorithm with artificial intelligence can perceive, think, act, and adapt. As earlier stated the definition of artificial intelligence defined by John McCarthy as "the science and engineering of making intelligent machines." Artificial Intelligence is essentially the replication of human intelligence in machines. An accurate AI algorithm, like a person's brain that can learn out of its own experiences.

Machine Learning: Machine learning refers to algorithms whose productivity accelerates over the time as they are exposed to more data. Machine learning is a group of algorithms that analyse data, gain knowledge from it, and then use that knowledge to make decisions. Numerous tasks can be automated as a result of machine learning.

Deep Learning: Deep learning is a branch of machine learning where multi-layered neural networks learn from enormous amounts of data. Deep learning can be classified as a subfield of machine learning because it uses data to determine and resolve problems. The neural network, a multi-layered structure of algorithms, is used in deep learning. Deep learning is responsible for all recent improvements in Artificial intelligence. Self-driving cars, chat bots, and personal assistants like Alexa and Siri would not exist without deep learning and Netflix would be unable to recommend any movies or TV shows.

ARTIFICIAL INTELLIGENCE IN INDIAN FINANCIAL SECTOR

The Indian financial system is revolutionizing the different course of action in terms of using AI technology. India is ramping the investments in AI. As per the recent survey conducted by PricewaterhouseCoopers (PWC), and the Federation of Indian Chambers of Commerce & Industry (FICCI) (2022), 83% of Indian financial firms believe that AI helps to improve their client experience. The paper "Uncovering the ground truth: AI in Indian Financial Services" analysis the importance and rapid growing influence of Artificial Intelligence in the Indian financial sector. Especially in the areas of Banking, Financial Services and Insurance (BFSI). In order to tack the rapid growing growth of AI with its ability to resolve major problems without human intervention. The Finance Minister in the Budget 2023 uplifted the use of raising importance of artificial intelligence and its related technologies by establishing three centre for excellence in Artificial Intelligence across the country. The Finance Ministry also stated "Make AI work for India".

DIFFERENT ARTIFICIAL INTELLIGENCE EMBEDDED APPLICATIONS IN BANKING AND FINANCIAL SERVICES

1) Virtual Assistants (Chatbots):

Chatbot is the computer application or software used to have virtual chat conversations. Chatbots stimulate responses similar to natural human conversations using Natural Language Processing (NLP) and Artificial Intelligence (AI), either by text or voice. Chatbots offer 24/7 assistance at anytime, anywhere, at the customers' convenience. It has been proven that assistance through chatbots has increased customer satisfaction. (Bhattacharya & Sinha, 2022) This AI innovation has paved the way for rapid technological advancement and has been rapidly adopted by different financial and non financial organisations to be able to move business from a traditional to a modern digital platform.

Many of the practical examples of intelligent virtual chat assistant or chatbots are Keya (Kotak Mahindra Bank), Yes Robot (Yes Bank), ILA (SBI Card Live Assistance), UVA (Union Bank of India), ETTY Bot - WhatsApp (HDFC Life Insurance), LIC Mitra (Life Insurance Corporation of India), Virtual assistant such as Amazon's Alexa is also an upright example.

2) Automation of Financial Reports and regulatory compliance:

The procedure of retrieval and report creation can be automated through by means of embedded intelligent artificial intelligence software. With less error, the tool can execute account reconciliation, enter data, and prepare financial reports, performance matrices, regulatory compliance statements, and legal compliance statements with more accuracy and reliability. Because of their high efficiency and transparency, AI embedded software automatically retrieve data from various systems to generate reports quickly and move them through any required approval processes. Additionally, since the software system records everything that occurs, audit trails are simple to store and access.

3) AI in combating Money Laundering:

Financial institutions must make the most of new technologies to stay ahead of criminals, who are learning to be more forward every year. For anti-money laundering purposes, AI can offer financial institutions a wider variety of customer data that is usable in risk analyses, suspicious activity detection, suspicious reports evaluation, and investigation of many internal and external cases.

4) Analytics:

To be able to protect human interests, AI-Analytics presently does have vulnerable strategic dimensions within regions. Of that kind interests must prevail to prevent the improper exploitation of the massive amounts of information that customers provide through advanced techniques and to prevent the struggle to apply analytics for innovation from turning into a form of perverse societal surveillance or an abuse of market dominance.

The Banking Financial Services Insurance (BFSI) Industry has used big data with data analytics and AI to boost organisational success and guarantee risk management, profitable growth, and effective performance. By 2027, it is assumed that global market for big data analytics in the BFSI sector will reach or surpass \$86 billion. The industry has been forced to use data analytics and AI technology to glean insights from various available sources as a result of the recent extension in the velocity, volume, and variety of banking and financial data. Additionally, in present scenario, tech companies like Google, Amazon, and Paytm have expanded their offerings and developed payment and banking applications to enter the BFSI space.

Banks should modify massive volumes of organisational data into quantifiable insights and strategies. Banks can undertake higher profitability analytics, manage risk, and enhance operational effectiveness with the support of business analytics or big data analytics that offers a wide range of capabilities. The profitability, compliance, sustainability, and competitiveness of banks are all increased by sophisticated predictive and prescriptive analytics. (Dr. Satya Swaroopa Boyina 2019) (*Analytics in Indian Bank - Google Search*, n.d.)

5) Predictive analytics

Predictive analytics is a branch of data analytics that uses techniques like big data mining, statistics, modelling, machine learning, and artificial intelligence to analyze data and make predictions. Predictive analytics tools comb through large volumes of data to identify patterns and trends using regression techniques, pattern analysis, and other statistical methods. Technologies such as machine learning, neural networks, and cognitive computing further improve the speed and accuracy of predictive models. Predictive analytics solutions help you forecast cash flows accurately and plan your investments and expenditure better. It helps mitigate financial risks and maintain good customer relationships.

Predictive analytics can be used to analyze the customer payment patterns, creditworthiness, and the likelihood of payment default. Even the day or date that a customer is likely to make a payment will be able to be predicted by more sophisticated predictive analytics algorithms. Risk in investments and detecting fraud are two more examples of productions. Credit maintenance, risk management, resource allocation, and budgeting.

6) Robotic Process Automation:

As per International Business Machines Corporation (IBM), a global technology company based in New York "Robotic Process Automation, or RPA, which is also known as software robotics, that uses automation technologies to replicate back-office tasks carried out by human employees, such as extracting data, filling out forms, moving files, storing and maintaining money or other assets, etc. RPA tools use deployed scripts that imitate human processes to carry out a variety of tasks and transactions autonomously."

RPA is a form of automation that makes use of rule-based software to execute business process activities in a high-volume manner, freeing up human resources to concentrate on more challenging tasks. Such kind of automation expands on RPA's capabilities by incorporating branches of artificial intelligence like

machine learning, natural language processing, and computer vision. Despite the fact that these terms are used interchangeably, robotic process automation (RPA) and artificial intelligence (AI) are two very distinct technologies. Artificial intelligence combines cognitive automation, machine learning, natural language processing, reasoning, hypothesis generation, and analysis (AI). RPA is process-driven, whereas AI is data-driven, and this is the key difference. RPA is similar to AI bots in that RPA uses machine learning to identify patterns in data, particularly semi-structured or unstructured data, and learns over time. Many industries are using RPA technology to streamline business processes. The following industries have RPA implementations:

Banking and Financial Services: "The RPA Systems Market is anticipated To Reach USD 12 Billion By 2023," related to banking and financial services 36% of all use cases under Forrester study, it is not to surprise that more than one in three bots today work in the financial sector given that banking were the primary industries to adopt automation. Many large banks now use RPA automation solutions to streamline operations like market research, account opening, query processing, and anti-money laundering. A bank employs a sizable workforce of bots to automate massive amounts of manual data entry. The many ways time-consuming, rule-based tasks that are involved in these processes are streamlined through automation.

In over 200 business processes spanning numerous purposes, as well as in human resource management, retail banking, trade, and forex, ICICI Bank was the first to adopt robotic process automation in 2016. The bank currently uses about 1500 RPA projects to manage 700 people's worth of tasks in order to improve response times and boost customer and business efficiency, (Economic Times 2022).

Insurance: There are numerous routine tasks in the insurance sector that could be automated. For example, RPA can be used to automate tasks for managing policies, complying with regulations, processing claims. call centres tasks, registration, and policy administration duties.

Retail: RPA has become an essential component of the modern retail industry, improving back office management and the customer experience as e-commerce has grown. Popular applications include customer engagement, storage facility and order management, user feedback processing and fraud detection.

Healthcare: Reliability and governance are critical in the health care industry. Few of the globally recognized hospitals use robotic process automation software to optimise data management, prescription monitoring, insurance settlement processing, and billing cycles, among other processes.

7) Facial Recognition and Bio Matrices:

By retrieving and matching identified facial characteristics from a digital video frame or image to a biometric system, a biometric system recognises and authenticates an individual. An algorithm, for example, may analyse the length between eyes, nose spacing, intensity of eyelids, shape of cheekbones, length of jaw line, and other characteristics and encode the corresponding data as "face prints," which can then be used to find suitable matches in a destination database. Alternatively Biometric solutions are mostly used for security and access control reasons in businesses and government organisations.

There are two distinct namely biometric detection and recognition solutions: physical and behavioural.

Physical Biometric strategies use distinguishing and measurable characteristics of individual human body parts, that is a person's face, iris, DNA, vein, fingerprints, and so on, and convert this data into a script for AI system can understand.

Behavioural Biometric solutions serve the same purpose, but they use unique behavioural characteristics that are a person's typing rhythm, device interaction style, balance and coordination, voice, and so on. These encoded biometrics is stored electronically and digitally analysed during authentication and verification.

The banking industry has been on the cutting edge of enterprise AI adoption. Facial recognition is one of several methods that banks can use to improve efficiency and affordability while reducing the impact on their customers' experiences. EMERJ (AI Research and Advisory Company)

One of the most contentious AI-based applications in banking is face detection for payment purposes. Face-recognition transactions are widely accepted in peer stores and restaurants in China. Such transactions are processed by one's systems, which associate them with a customer DNA in order to track the client's preferences and provide more precise recommendations every time. The payment gateway detects one's face and sends its pattern to the interpreting device, which compares it to your bank's authenticated pattern. Because it does not typically involve a Smartphone or a credit card, the transaction takes seconds and provides consumers with a new level of convenience. It may also include cash deposits, withdrawals, and other banking activities performed via AI Embedded tools Using authentication and confirmation from customers.

The prospect of banks using facial recognition has alarmed some privacy experts in India. "This raises serious privacy concerns, particularly given India's lack of a dedicated privacy, cyber security, and facial recognition law," said Pavan Duggal, a cyber law expert and advocate. Regardless of the fact that the use of AI-based Facial Recognition and Bio Matrices technology was legally restricted. The Indian government allowed banks to use facial recognition and, in some cases, an iris scan to verify individual transactions that exceeded certain annual limits in an effort to reduce fraud and tax evasion, (NDTV and TOI 2023).

8) Document Digitalisation:

Paper documents are typically converted to digital format by using a wide range of tools and methods that hardware and software can use to automate workflows or processes. It is considered to be the most significant step in turning a company into a digital one. The process of digitising paper documents is referred to as scanning them. Either the paper can be scanned and converted into a PDF, or the paper can be converted into an electronic version using a document management system, OCR software, or intelligent document processing systems.

Document digitization makes data available anywhere and allows individuals to easily access the data to meet their daily business requirements. Document digitization allows for the smooth operation of your

organization's processes as well as increased operational efficiency. Digitally stored documents are simple to handle, store, locate, and process. They reduce the cost, time commitment, and labour involved in managing paper documents.

Examining a document means converting a visual into text so that it can be retrieved electronically. Several approaches are used, including: Optical character recognition (OCR), Optical barcode recognition (OBR), intelligent character recognition (ICR) Optical mark recognition (OMR) .

OCR is a subset of computer technology that focuses on recognising multiple letters and characters and digitally reproducing them for later use. This opens up a variety of possibilities for the financial sector, as well as some software solutions most notably, All information from scanned documents is digitised and saved in a directory for client information and maintain important records OCR. Banks may benefit from using OCR to digitalise documentation such as routine paper applications for mortgage loans, lines of credit, financial records, credit scores, and debit/credit card information, among other things. Scanning all of this data would result in a large number of truly innovative electronic files for the financial institution to keep track of, and it would then need to be easily accessible to other departments in order to be useful. (AI Research and Advisory Company) (AI-based Document Digitization in Banking – Current Applications)].

Many operational banks, insurance companies, and other investment firms probably keep a huge portion of documents in geographically located cabinets, racks, and storage containers. This makes it extremely difficult for employees at these companies to quickly search through these documents, especially when looking for specific information within them.

The Digital Data Revolution is machine vision software that could help banks and insurance companies upload documents into other system applications while also allowing their employees to search for data within those documents. In theory, the machine vision algorithm behind document digitization software not only generates a PDF scan of a document, but also populates the framework of digital data and its related information.

9) Loan Processing using Artificial Intelligence:

Financial institutions deny 50% of all first-time borrowers. This may change as artificial intelligence technology is most popularly used in loan evaluation. Despite the fact that traditional lending processes have relied solely on credit ratings, reputation processes, and time-consuming paperwork, AI is already causing a paradigm shift in how retail applicants are evaluated for better Lending. As per a National Business Research Institute and Narrative Science study, roughly 32% of the country's financial service providers started to adopts AI technology. Though fintech firms were the first to use artificial intelligence (AI) in lending, traditional banks and Non-Banking Financial Companies (NBFCs) aren't far behind in using this new technology to meet the needs of new-age customers.

In the absence of a credit score, financial institutions have struggled to determine a borrower's creditworthiness. This problem keeps many more qualified borrowers from accessing credit, while financial institutions lose a significant amount of business. As previously stated, 50% of first-time loan

applicants are denied, primarily due to lending institutions' obsessive focus on credit ratings and credit history.

Artificial Intelligence (AI) and Machine learning (ML) provide a solution to this problem by utilising predictive analytics, digital footprints, and other complex algorithms and data points. Financial institutions can now evaluate a loan applicant's creditworthiness based on their online purchasing habits, usage and phone bill payment history, or even social media profiles.

AI offers numerous advantages to lending institutions in online lending management, evaluation, and fund transfer. However, its advantages are not restricted to loan evaluation; it also offers other benefits such as:

- ✓ Make loan approval and processing faster.
- ✓ Helping first-time loan applicants establish a credit profile.
- ✓ Assisting banks in attracting more borrowers and growing their businesses.
- ✓ Lowering bank operating costs.
- ✓ Increasing security while adhering to regulatory requirements.
- ✓ Advanced risk and data management.

According to experts, AI would assist financial institutions in connecting with over 350 million first-time credit borrowers and reduce loan defaults by at least 33%. Because AI and ML technology can detect errors in loan applicant information and documents more quickly, financial institutions can simply ignore likely defaulters. Predictive analytics is 90% effective at predicting a prospective customer's repayment behaviour, which helps to reduce insolvencies. AI will give banks and NBFCs access to a different source of data so they can serve India's expanding young population and create new and expanded lending opportunities. On the other hand, millions of families having easy access to credit will increase consumption and the economy. A Boston Consulting Group report claims that by 2023, the digital lending or online loan industry could reach revenue of Rs 10 lakh crore, (ICICI Bank - Artificial Intelligence in loan assessment).

At present, instant loan software's have gained popularity in India and around the globe. These mobile applications have created a grave challenge for financial institutions and banks in relation to lending. As per Forbes Advisor, the best instant personal loan applications in India (2023) are TATA Capital, Rapid Rupee, Avail Finance, Loan Tap, Money Tap, Money View, and FairMoney Loan App.

10) **Humanoid Robots:**

The speed of the digital transformation being accelerated towards Humanoid robots is improving customer experiences in banking today. Bank front offices are important when adopting digitization since they operate as the initial point of interaction between a customer and a company.

Real-world examples include In 12 cities, ICICI has customised robotic arms. Robotic arms are used to organise incoming notes, store notes, verify their accuracy, and neatly separate them one from the other and An exclusive Intelligent Robot Assistants (IRA), a humanoid robot for branch support, was unveiled

by HDFC Bank in the various branches. Every day, it serves more than 60+ people on average. Together with bank workers, the robots have improved the customer experience by recognising the presence of customers, answering their queries, and directing them to the nearest counter. Recently IRA 2.0 was launched by HDFC in Bengaluru as well (TOI), (“HDFC Bank Launches Interactive Humanoid IRA 2.0 in Bengaluru,” 2018).

CONCLUSION:

The Banking Financial Services and Insurance (BFSI) is rapidly changing the way they function. By the means of artificial intelligence and advanced technology, all traditional banking services are revolutionized with modern banking products and services. To be able to increase efficiency and retain better customer engagement, this AI-embedded financial innovation has been used extensively. Both at the national and international levels, governments are paving the way for increasing the use of artificial intelligence in financial and business operations.

The Chat Bots, Report Generation, Analytics, RPA, Biometrics and Loan Processing are some of the software applications that are used in banking and financial services. Other than this, artificial intelligence is also extensively used in different fields. Few of the latest trends include ChatGPT, Digital Immune System, AI in Cyber Security, Autonomous Vehicles, etc. Since the implementation of artificial intelligence is still in the development phase, there is still much to be discovered and experienced in the future.

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