
ORACLE



ORACLE®

TD SYNnex POSITIONING

AI STRATEGY

AI SOLUTIONS

ENABLEMENT

LAB DEMO ENVIRONMENT

EDUCATION

USE CASES

* Eventuali brand dei vendor citati e riferimenti a scenari e soluzioni Oracle , possono essere contenuti pubblici condivisi dal vendor

TD SYNnex AI Partnerships – ORACLE Positioning

TD SYNnex helps his vendors to **amplify** their position in AI



AI-Enabled Independent Software Vendors (ISVs)

Companies that have infused AI into their software applications used by businesses



AI Accelerators

Technology optimized to boost the performance of AI applications and models



Core AI Software/Platforms

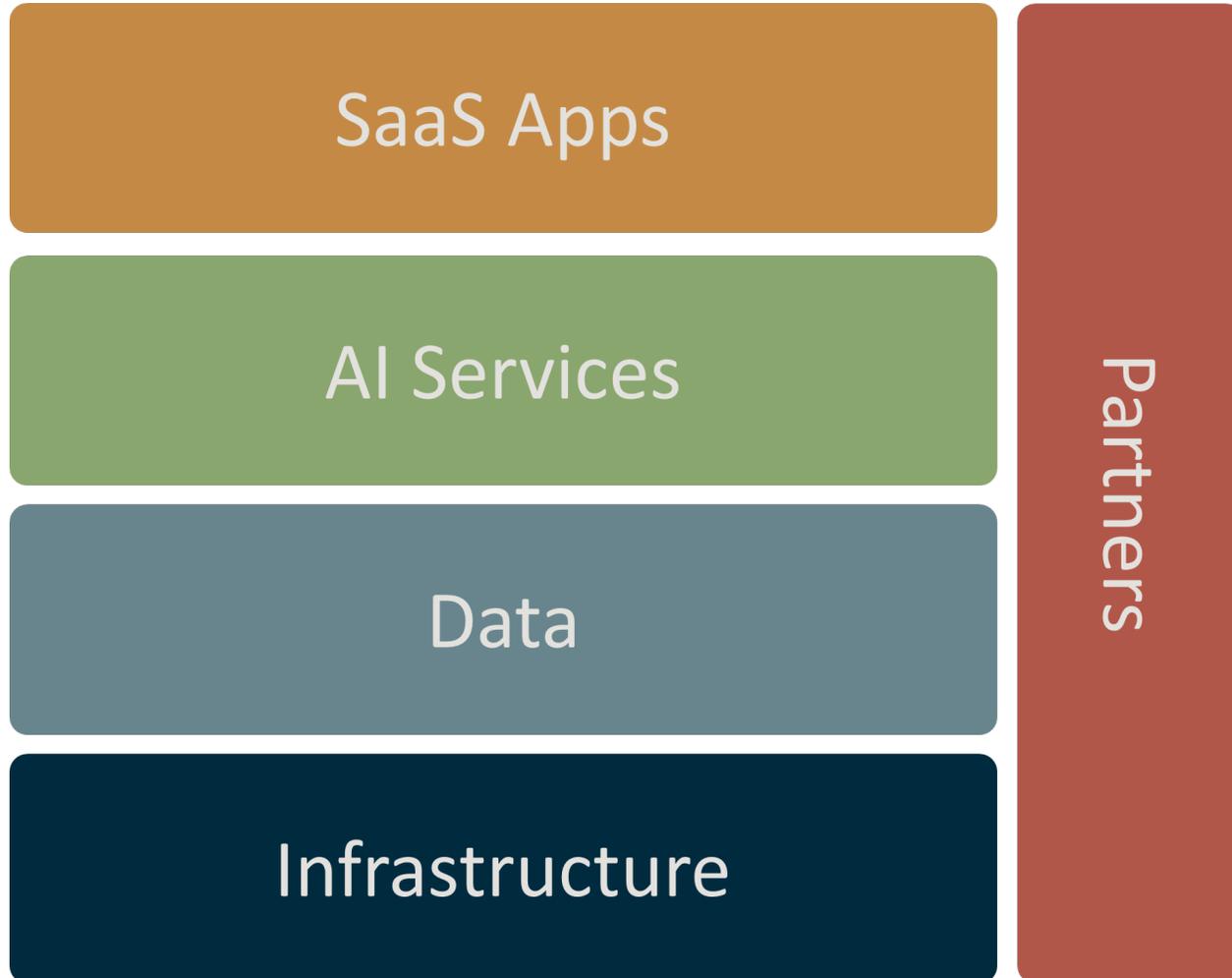
Create and enhance AI models



AI Infrastructure

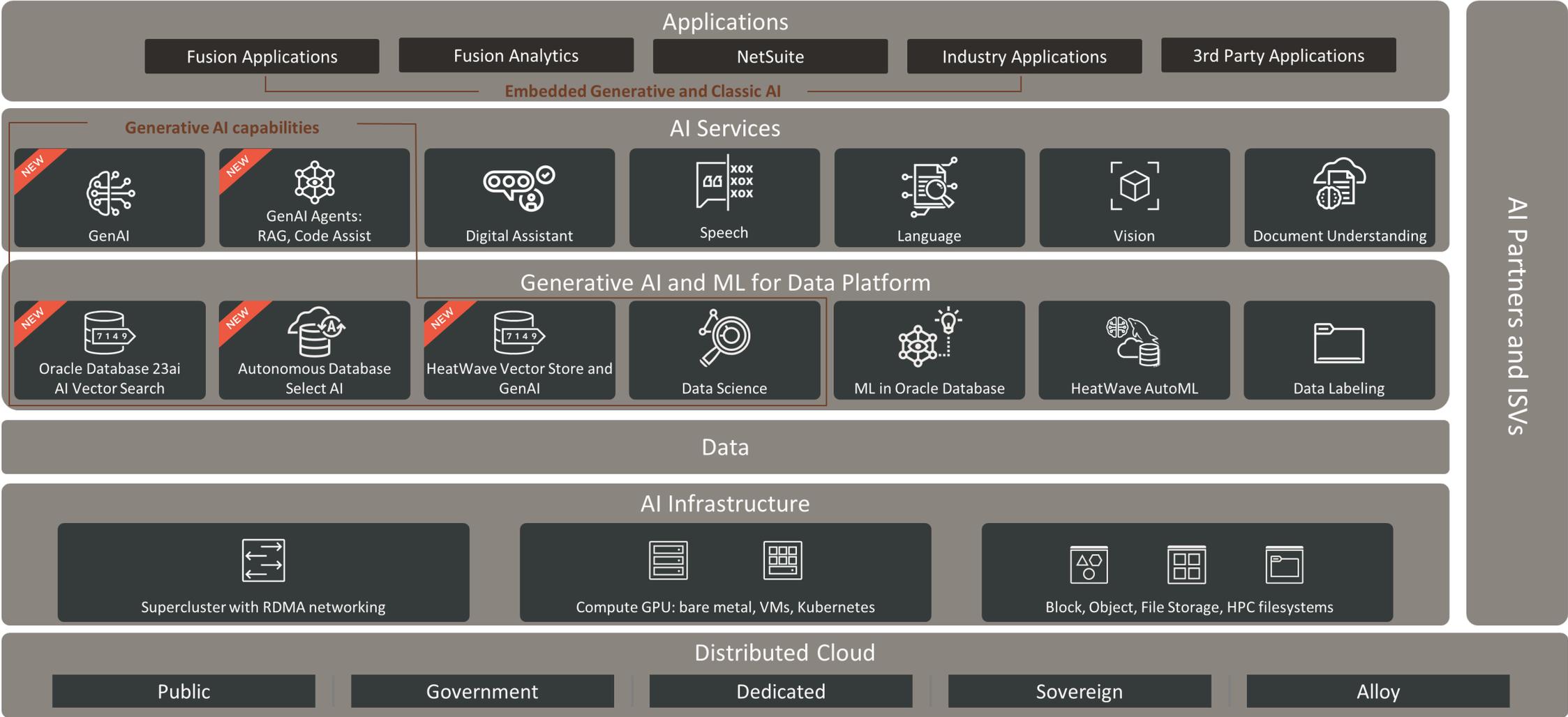
Edge, cloud, compute network, storage, cloud, and infrastructure consumed by AI





Oracle brings AI to the enterprise at every layer of our stack

ORACLE AI STRATEGY



By embedding AI throughout the entire technology stack - from the infrastructure that businesses run on, through to applications for every line of business from finance to supply chain and HR - Oracle is helping organizations pragmatically use AI to improve performance while saving time, energy, and resources:

1. Our core **cloud infrastructure now includes a unique AI infrastructure** layer based on our Supercluster technology, leveraging the latest and greatest hardware, and uniquely able to get the max out of the AI infrastructure technology for scenarios such as LLP - Large Language Processing.
2. On top of this infrastructure, our **database layer embeds AI** in our products such as our Autonomous Database and MySQL HeatWave with AutoML (built in Machine Learning), to enable developers to add prebuilt models to applications and operations without being experts in technologies such as ML
3. And our **application development platform provides AI services** such as Oracle Digital Assistant for NLP (Natural Language Processing).
4. In addition, Oracle's broad range of **industry applications embed AI** models that are trained to tackle the specific challenges of industries ranging from healthcare and financial services to retail, manufacturing, and the public sector. This puts us in a unique position to help our customers optimize workloads to solve the most complex and strategic challenges.

- OCI Generative AI
- Oracle AI & Data Science Services
- Oracle AI Infrastructure
- Oracle AI in Database

Discover AI capabilities



Applications

Surface insights directly inside the apps that support your key business functions with embedded, fully functional AI capabilities.

[Explore Oracle Cloud Applications](#)



Generative AI

Choose from managed open source or proprietary LLMs. Fine-tune prebuilt models and augment them with your own enterprise data. Take advantage of built-in vector databases.

[Explore generative AI](#)



AI services

Add prebuilt models to your applications to leverage AI that can be customized with your own data for improved model quality.

[Explore AI services](#)



Generative AI and ML for data platforms

Collaboratively build, train, deploy, and manage machine learning (ML) models with your favorite open source frameworks, or leverage in-database ML.

[Explore machine learning](#)



AI infrastructure

Benefit from the cloud's elasticity, usage-based costs, and the performance you need, delivered anywhere with OCI's distributed cloud.

[Explore GPUs for AI](#)



AI ISVs

Accelerate and streamline AI innovation with help from our partners.

[Explore Oracle's AI ISVs](#)

Because the field is vast and evolving, there is no definitive list of AI capabilities. That said, here are five of the most common AI technologies in use today, either as software features or integrated using APIs

Digital assistants apply deep semantic parsing using natural language processing and understanding as well as custom algorithms to derive accurate intent and context from conversations. With digital assistants that understand their business-specific vocabulary, employees and customers can communicate with applications using voice commands

Speech recognition systems create accurate, real-time transcripts from natural conversations or convert recorded audio conversations to textual data to analyze with AI services. Speech recognition is increasingly multilingual, with the ability to translate between multiple languages instantaneously

Language services detect and translate languages in written text and automatically recognize specific types of content, including the names of people, locations, products, and organizations. These services can also analyze the mood or tone of the text as positive, negative, or neutral with a confidence score and automatically classify text based on key words and phrases.

Vision recognition extracts textual or visual information from still and moving images and uses that data to drive analytics applications. These AI tools can enrich image-based files with metadata tags, such as descriptions of objects; those tagged images can be indexed for uses such as intelligent search and retrieval. With the right training, the system can also detect anomalies in photographs and videos, which is why vision recognition is currently being used in manufacturing applications such as automatic quality control.

Document understanding automatically extracts text and key-value pairs from a variety of digital or scanned files, including those that are rotated, tilted, or even deteriorated. This can help with applications such as expense processing, by reading receipts, or logistics, by understanding bills of lading. These tools can also identify and extract table structure from documents and sort documents into common categories

Generative AI

- creates new content in the form of images, text, audio, or even software code. Examples of generative AI systems include ChatGPT, which can answer questions, summarize text, or carry out instructions by generating a written response to a query, and Dall-E, which generates images in a variety of styles based on commands. Generative AI is being embedded into business applications to work with and augment other AI functionality, such as automatically generating a draft job or product description, drafting a doctor's discharge note, or concisely summarizing an article to answer a customer support inquiry. Generative AI can summarize documents, information from databases, or other data in written form and make the output from interactive chatbots seem more natural. (A chatbot is an interactive program that can converse with a customer or employee in real time using typed text.)

Assisted authoring Using a short prompt, generative AI capabilities can quickly create content, such as job or new product descriptions, for review, revision, and approval.

Suggestions Quickly guide users to better results based on natural language processing and best practices. Generative AI can also offer recommendations for survey questions or professional development tips for managers to provide to employees. For example, a customer service application can suggest a how-to article based on the customer's inquiry.

Summarization Increase efficiency by identifying key insights from one or more data sources. New generative AI capabilities can explain the key elements of content for simple and impactful consumption. For example, a customer service agent can ask for a summary of a knowledge base article to resolve a customer service inquiry or deliver a concise text summary from a table or chart

Artificial Intelligence (AI) is essential in today's world as it makes our life easier and better. The volume of data that is being generated nowadays far exceeds our ability to absorb, interpret, and make complex decisions based on that data. This is where AI comes in and elevates the speed, precision, and effectiveness of human efforts.

AI is currently used in nearly every industry and domain, such as healthcare, manufacturing, retail, customer service, transportation, agriculture, and is touted to become even more prevalent and transformational in the future. It's no wonder that AI skills are most sought after by employers even though it is a relatively new and growing technology.

We are excited about the boundless potential of AI, and endeavor to impart knowledge to anyone interested in getting a foothold in AI. Therefore, we are happy to announce a new [OCI AI Foundations certification and course](#) that is available to you at no cost. If you are getting started with AI, this is the perfect starter course and certification for you.

OCI AI Foundations Course

AI can have a steep learning curve as it is not a single technology, but a collection of tools, frameworks and algorithms. Moreover, to learn AI, traditionally you needed to have programming experience (e.g. in Python) and a strong foundation in mathematics. But recent advances in Generative AI and no-code AI platforms have opened opportunities for individuals to learn AI without requiring extensive coding skills and a strong mathematical background.

Retail

Supply chain optimization

Customer: A retail clothing line with dozens of brick-and-mortar stores.

The problem: Maintaining proper inventory levels in stores and regional warehouses is critical for retailers. Even occasional problems with suppliers can lead to stockouts. In this low-margin business, being out of a popular SKU is especially challenging during sales and promotions. Managers want to delight shoppers and increase sales—but without overbuying

The AI solution: The retailer has multiple information sources, ranging from point-of-sale terminals to warehouse inventory systems. It also has insights into delivery schedules from suppliers to warehouses and from warehouses to stores. The business's enterprise resource planning system records historical sales data, which includes external factors such as seasonality, weather patterns, and results of marketing campaigns and promotions. Advanced data management systems integrate this information into a massive data set, which is then modeled by data scientists and inputted into a forecasting model that can make predictions, such as demand increase due to a holiday or planned marketing promotion, and determine the time required to acquire and distribute the extra inventory. The AI model can be proactive: For example, it can alert the retailer that the sales of certain items are exceeding the ability to restock in some locations and suggest that promotional offers be used to redirect customers to other products. Most ERP-based forecasting systems can produce sophisticated reports. A generative AI report writer goes further, creating custom, plain-language summaries of these reports tailored for each store, instructing managers about how to maximize sales of well-stocked items while mitigating possible shortages

Hospitality

Customer feedback analytics

Customer: A hotel chain that depends on positive ratings on social media and review websites.

The problem: The hotel chain can't keep track of its online reviews. There are too many postings, comments, and hash-tagged mentions for customer service staff to track and analyze, leading to missed opportunities to engage unhappy customers complaining on social media. Corporate executives are unable to track sentiment trends. Hotel managers don't know what's being said fast enough to address problems in real time.

The AI solution: The hotel can create a large data set from the tens of thousands of previously published online reviews on sites such as Yelp, TripAdvisor, its own Facebook page, booking websites as well as comments scraped from social media, by looking at mentions and hashtags. A textual language AI system can perform a sentiment analysis across that data set to determine a baseline that can be periodically reevaluated to spot trends. Taking it up a notch, data scientists could build a model that correlates those textual messages—and their sentiments—against specific hotel locations, their occupancy levels, staffing on specific dates, and other factors such as weather. AI can determine if there are signals that could warn individual hotels of situations that may lead to complaints so that remedial action can be taken in advance

With AI, the hotel can be alerted to problems in real time by scanning social media and other channels, comparing the data against the model and running it through a sentiment analysis. Generative AI can extract valuable suggestions and insights from both positive and negative comments. Perhaps customers in one location have problems with parking. Out-of-date guest rooms and inconvenient breakfast hours are generating buzz at another property. The buffet at another location gets lots of enthusiastic shout-outs. AI can spot those trends, even if the phrasing isn't identical. This use of AI can go beyond sentiment analysis to offer proactive guidance to individual managers and the corporate headquarters, enabling it to continually improve its guest experiences.

Car rental Enhanced call center experiences

Customer: A car rental company with a busy reservation hotline.

The problem: The call-center manager wants to give every customer a great experience while minimizing the number of calls placed on hold or transferred to supervisors. But calls keep coming in. People call the hotline for any number of reasons: to make reservations; ask for changes, cancellations, or a better price; or for help finding pickup/drop-off locations. Customers call when they are having a crisis, such as a flat tire, or when they simply can't figure out how to open the trunk.

The AI solution: At the call center, various AI technologies can be combined to act as an invisible assistant for agents, transcribing each call in real time, performing sentiment analysis to discover meaning, and advising agents through onscreen information displays and chatbot-like windows. For example, speech recognition AI can detect essential information, such as the customer's name, the rental car city, the account number, and the rental policy number, and display this information to the agent. A generative AI system, underpinned by a large language model (LLM) and a knowledge database, can understand many common questions and can feed answers back to the agent. Can't find the rental desk? The AI can provide the agent with a map and create directions. In an accident? The AI can trigger automatic responses while prompting the agent on the essential questions to ask. AI technology can also assist the agent by assessing the caller's emotional responses, whether happy, stressed, angry, or confused. It may offer suggestions for de-escalating a confrontational situation and prompt the agent to offer discounts, upgrades, bonus frequent-renter points, or other accommodations. After the call, the AI system can help assess the call quality and customer satisfaction, with feedback for the agent and the manager.

Warehouse

Talent requirements and job description generation

Customer: A large warehouse and shipping center that hires hundreds of full-time, part-time, and seasonal employees each year.

The problem: The process of forecasting hiring needs and timelines and generating the job descriptions can be time consuming for HR, creating a bottleneck in the hiring process. Managers need to know when to begin the recruiting process because some positions are harder to fill than others. And while many of the jobs seem similar, there are sufficient differences to affect job descriptions and pay scale.

The AI solution: Using its database of current and past employees, HR can train an AI model to predict how long workers are likely to stay in a position. The AI model takes into account the details of each job category as well as the age of employees, starting pay, history of raises and bonuses, and typical seasons when workers may leave, such as right before the beginning of a school year. Based on that information, the AI system can make reasonable predictions to estimate the number of openings and when those openings may occur. When coupled with historical data regarding advertising and start dates, the AI model can advise HR on when to begin a search for those workers. The HR department can feed its job description database into a data model (a visual representation of data elements and their connections) to generate checklists for hiring managers and HR staff to use when preparing to hire specific roles. Generative AI can then take those checklists and create textual drafts of job descriptions and matching job ads formatted to the styles of specific job boards and other posting sites

Healthcare

The patient's journey

Customer: A fast-growing medical practice that needs scheduling help.

The problem: The mechanics of medical appointments can be frustrating for everyone involved: patients, receptionists, nurses, and physicians. There are many time-consuming steps—including scheduling, checking in, interactions with the doctor, checking out, and follow-ups. Trained staff are hard to hire, and the rules regarding handling of patient records leave little room for error. To earn good ratings, practices need to improve patient satisfaction by delivering shorter wait times and less bureaucracy. Medical professionals also appreciate productivity advances that allow them to treat more patients per day

The AI solution: Electronic health records open a world of potential benefits. Using computer vision and document understanding, for example, a diagnostic system can analyze lab results as they are submitted to the practice, summarizing them for the doctor's review as preparation for a patient visit. AI can interpret paper forms, scanned images, and tests, such as X-rays and CT scans, as well as structured data to offer one or more possible analyses for the doctor, considering the latest research and the patient's history. Generative AI can summarize transcripts from the visit, as well as lab results and the doctor's diagnosis, and prepare a draft of these materials for medical staff to edit and approve, thereby saving time. If the doctor recommends a specific exercise regimen, for example, the generative AI model can prepare instructions that consider factors such as a recent knee replacement or a preference for swimming over walking. With generative AI, medical practices can deliver positive health outcomes while seeing as many people as possible. And in the process, practices can reduce costs, improve earnings, and provide human-centric experiences for patients who receive better treatment faster

Financial services

Customer verification and fraud protection

Customer: A regional bank needs to detect fraud more quickly and effectively.

The problem: Unfortunately, fraud can creep into any part of a bank's retail operations. Branches may encounter fake documents being used to open accounts and stolen checks being deposited. Fraud can happen with online transactions from a phone or browser, at offsite ATMs, even among staff. Without trust, banks won't have customers—or shareholders. Excessive fraud, and delays in detecting it, can violate financial industry regulations, cause insurance premiums to increase, invite closer scrutiny by regulatory agencies, and generate negative press. That means a loss of confidence by customers, investors, and the broad market

The AI solution: Fraud detection can combine multiple AI technologies, including computer vision to interpret scanned documents; document verification to authenticate identification materials, such as driver's licenses or national ID cards; and machine learning (ML) to compare transaction information against a large model of known legitimate and fraudulent transactions. Together, these technologies feed into an anomaly detection model that calculates the statistical risk of fraud in each attempted transaction within seconds. If the risk is too high, alerts trigger automated actions, such as to place a hold on withdrawals, prompt the customer to provide additional forms of identification, or otherwise temporarily delay the transaction pending a manual review by a risk assessment specialist. Consider a request to open a credit card. The applicant might be using a real credit score, address, identification, and other personal information; or it may be fraudulent, gained via identity theft. The AI system could detect anomalies based on factors a human may not notice, such as an ID with a slightly different physical or email address than the application, or an ID that is a photograph of an ID scanned by a mobile device instead of the genuine item

Health sciences Pharmaceutical research

Customer: A biotech firm looking to find effective new treatments faster and more cost-effectively.

The problem: Researchers at biotech companies must integrate a tremendous quantity of information such as prior research at their firms, papers in peer-reviewed journals, academic work still in progress, formal clinical trials, patent applications, and more. Having a full grasp of prior work can suggest new approaches to solving problems while saving the time and cost of inadvertently trying something that's already failed. Anything that can help the researcher find and interpret relevant information will speed the process, helping bring new medications and medical devices to market more quickly.

The AI solution: A huge amount of information is already in digital form: online journals, patents, and clinical trial data. Much of that information is structured in a database or a spreadsheet. Other data sources, such as journal articles, are formatted as complex documents, often with a detailed layout and embedded diagrams. AI document understanding, as well as image processing and even language translation, can work with generative AI to summarize those papers, extract relevant information, and determine relevance to a particular project. The documents can also be collected into a large data model that can be studied and mined for insights. The work doesn't stop when a relevant paper, diagram, database, or other information is found. Generative AI can work with the researcher to find the specific information, summarize it, and even interactively create a contextual representation of how that outside data relates to the researcher's current work. The benefit goes beyond the obvious productivity boost for the researcher. Given the vast quantities of pharmaceutical data available, it would be easy to overlook relevant information that might result in breakthroughs or warn of potential areas of concern, such as side effects. Given the extreme cost of this research and the time-consuming nature of reviewing prior material, AI assistance can be a game changer—and a lifesaver

Utilities

Predictive maintenance

Customer: An electricity grid operator with a service area of thousands of square miles.

The problem: The operator owns a vast array of equipment—pylons and substations, long-distance transmission lines, underground cables, poles, and transformers. Preventive maintenance on this equipment is both necessary and complex, and it must happen according to the manufacturers' schedules as well as when individual devices show signs of trouble. The objective is to perform maintenance as cost-effectively as possible, reducing travel time and making use of technicians' skill sets and availability while meeting service uptime delivery requirements

The AI solution: With AI, data informs decisions about regularly scheduled maintenance and prompts staff to preemptively dispatch a crew when a system appears likely to fail. Relational databases and geographic information systems (GISs) store each device's location, maintenance and trouble history, and recommended service intervals. Drone imagery can capture trouble points on remote power pylons and help avoid the risk of fire by assessing whether vegetation in the right of way needs clearing. Meanwhile, sensors in transformers and other devices can broadcast data points, including operating temperature, power fluctuations, and other telemetry. This logged information and timestamped telemetry can be fed into an AI system that determines a baseline for normal operations during various seasons, weather conditions, and grid utilization. The algorithms can then not only detect anomalies based on real-time data from devices but determine severity: Is it a case of "check this out next time a crew is in the area" or a "prepare to reroute power while dispatching a team" situation? The forecasting software can make recommendations while also showing the justifying data. It can also maximize field crew efficiency by identifying proactive maintenance that can be performed while workers are fixing nearby equipment. With intelligent scheduling, anomaly detection, and forecasting based on past data, the utility can anticipate failures and get early warnings of potential issues, which ensures equipment uptime and helps manage maintenance costs

Defense

Identification document analysis

Customer: A government site requiring tight access control.

The problem: Security personnel at a minimum-security defense installation need to quickly determine which individuals should be granted access, often using documents, such as passports, national ID cards, or (in the United States) a driver's license. These documents come in a wide range of sizes, shapes, designs, and with unique authenticity markings making it difficult for security staff to spot fakes. It can also be challenging to automate the process of extracting information from those IDs to check against databases and record in visitor logs.

The AI solution: Checkpoint scanners can quickly submit ID cards into a large AI model that has been trained to not only recognize various types of identification documents, but to check them against both implicit security controls and a large sample of forged or otherwise fraudulent documents, making it possible to determine which documents are legitimate with a high degree of confidence. Beyond the appearance of the ID itself, document-understanding algorithms can parse and extract data, even when that data is unlabeled. For example, a field may be written in many forms, some numeric, some alphanumeric; an ID with several items that appear to be dates may have an issue date, an expiration date, and the individual's date of birth—none of which are clearly labeled. Names, addresses, and other information may also require interpretation by an AI algorithm trained with a large data set. Once data has been extracted from the ID, and a fraud determination reached, the AI system assisted by algorithmic prompts can compare that individual against those who are explicitly authorized to enter the facility; those who may have implicit authorization, such as contract employees; and those who should be deferred for a closer screening.

Manufacturing Visual quality inspection

Customer: A factory that makes metal parts and other products used in shipbuilding, construction, and other applications.

The problem: Many manufacturers work under strict requirements and quality controls, often due to industry regulations and/or contract terms. As a result, these factories use both visual inspections and electronic means to monitor product quality. A part that fails to meet the requirements may be reworked or repurposed, or it may need to be scrapped. The factory seeks to maximize profits and throughput by shipping as much good material as possible while minimizing waste by detecting and handling defects early

The AI solution: Factories generate a great deal of data about how each product was created, including furnace temperatures and the quantity of metals and gases used for each stage in the manufacturing process, which can be compared against requirements as well as best practices. In addition, the quality assurance process creates X-ray images. This data can be interpreted by computer vision, which can learn to identify cracks and other weak spots after being trained on a large data set. Such defects can be categorized based on their size, shape, and quantity. In addition, problematic or ambiguous data can be highlighted for human inspectors, who will be the final arbiters of the QA inspection. In this way, machine learning based on large data models, real-time telemetry, and computer vision can assist with analyzing data and make recommendations for approving or repurposing each product. For example, a beam that's not sufficient to hold 100 tons for one application can be certified to hold 10 tons for a different application. It might be sold for a lower price, but that's better than scrapping it entirely