

# *AI Profiling For Specific Sectors*



# *Researched and Prepared by :*



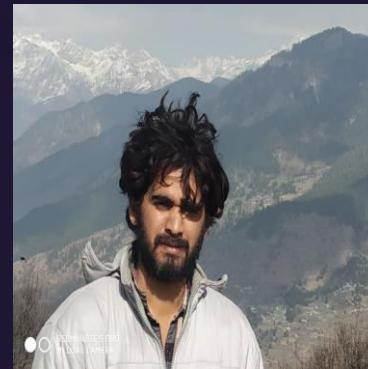
**KARTHIK  
THALLAM  
500188370**



**URMI PAREKH  
500186977**

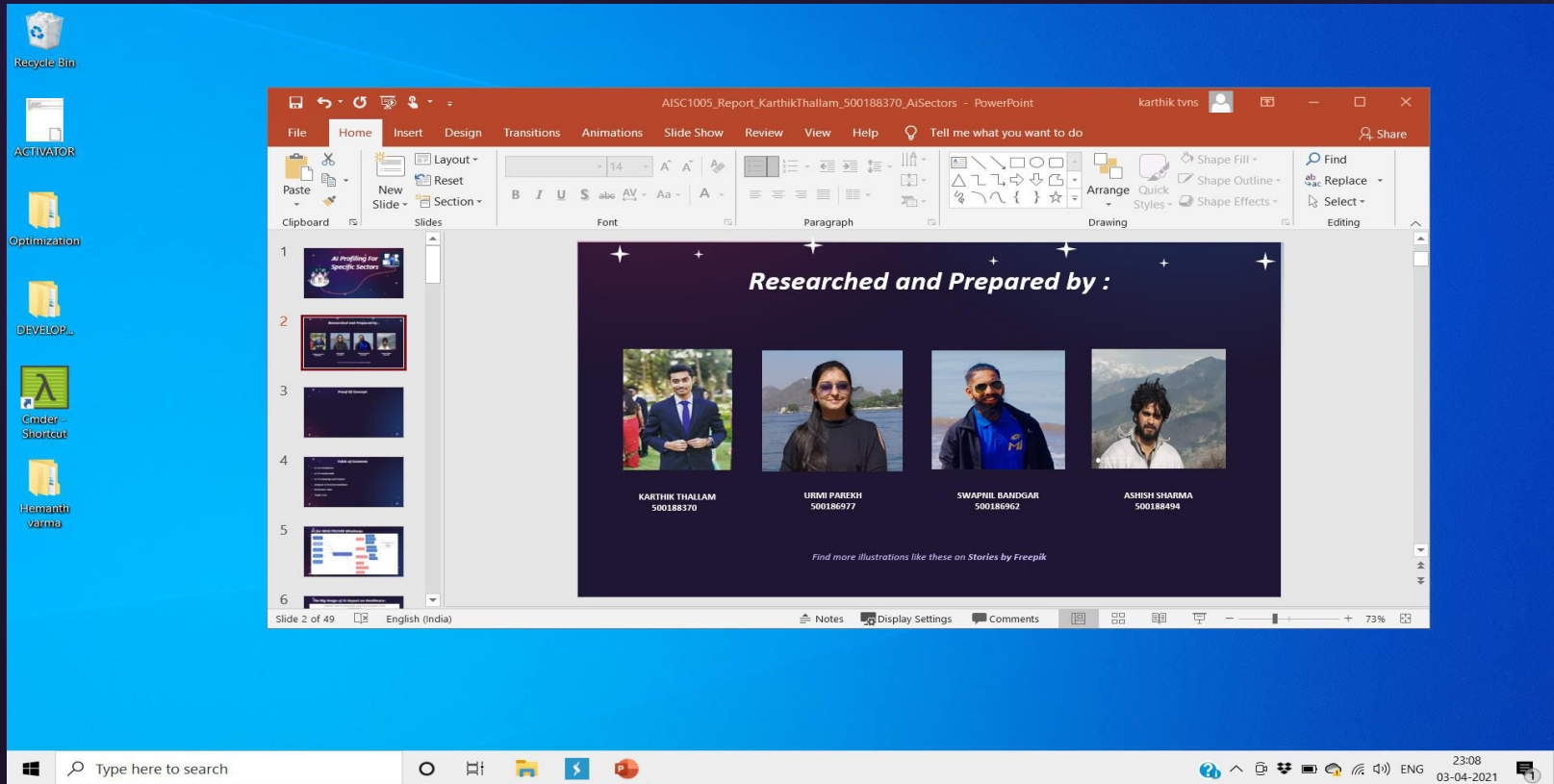


**SWAPNIL  
BANDGAR  
500186962**





**ASHISH  
SHARMA  
500188494**

# Proof of Concept (POC) on my Machine:



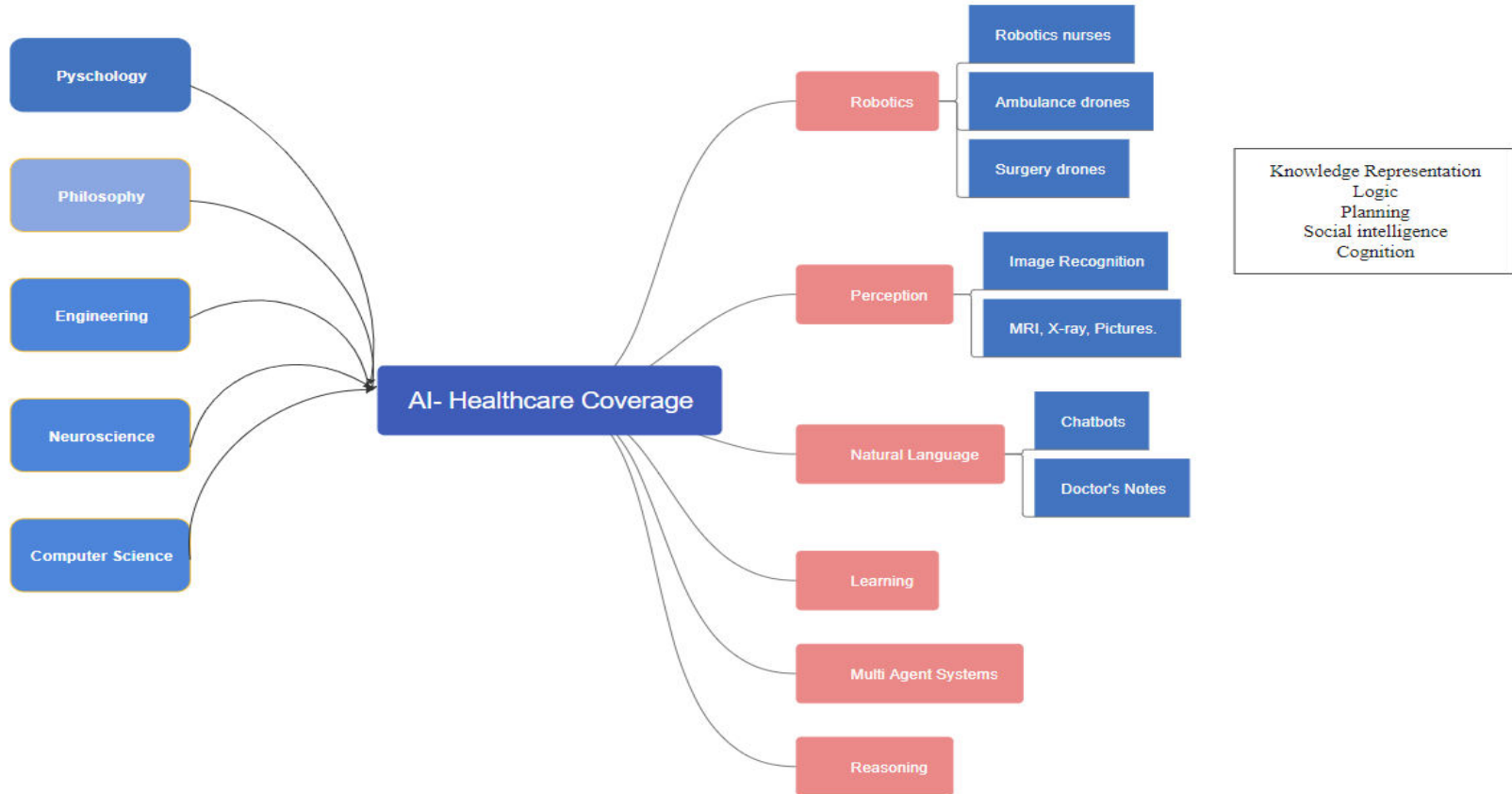


# *Table of Contents*

- 
- AI For Healthcare
  - AI For Automobile
  - AI For Banking and Finance
  - Analysis & Recommendations
  - Reference Links
  - Q&A
- 



# AI for HEALTHCARE Mindmap:



# *The Big Image of AI impact on Healthcare:*

CHRONIC HEALTH CONDITIONS EXPECTED TO BENEFIT MOST  
FROM AI/ML



# ★ *The Big Image of AI impact on Healthcare*

The Common AI use cases are:

- ★ **Next Generation Radiology tool:** AI will enable the next generation radiology tool that are accurate and detailed enough to replace the need for tissue samples in some cases. Providers may also be able to better define the aggressiveness of cancers and target treatments more appropriately. Artificial intelligence is helping to enable “virtual biopsies” and advance the innovative field of radiomics, which focuses on harnessing image-based algorithms to characterize the phenotypes and genetic properties of tumors.
- Expanding Access To Care Developing Regions:** Artificial intelligence could help mitigate the impacts of this severe deficit of qualified clinical staff by taking over some of the diagnostic duties typically allocated to humans. However, algorithm developers must be careful to account for the fact that disparate ethnic groups or residents of different regions may have unique physiologies and environmental factors that will influence the presentation of disease.
- Reducing The Burdens Of Electronic Health Record Use:** EHR developers are now using artificial intelligence to create more intuitive interfaces and automate some of the routine processes that consume so much of a user’s time. Voice recognition and dictation are helping to improve the clinical documentation process, but natural language processing (NLP) tools might not be going far enough. Artificial intelligence may also help to process routine requests from the inbox, like medication refills and result notifications. It may also help to prioritize tasks that truly require the clinician’s attention making it easier for users to work through their to-do lists.



# ★ *The Big Image of AI impact on Healthcare*

The Common AI use cases are:

- ★ **Containing The Risk of Antibiotic Resistance:** Electronic health record data can help to identify infection patterns and highlight patients at risk before they begin to show symptoms. Leveraging machine learning and AI tools to drive these analytics can enhance their accuracy and create faster, more accurate alerts for healthcare providers. AI tools can live up to the expectation for infection control and antibiotic resistance.
- Creating More Precise Analytics For Pathology Images:** Artificial intelligence could help mitigate the impacts of this severe deficit of qualified clinical staff by taking over some of the diagnostic duties typically allocated to humans. However, algorithm developers must be careful to account for the fact that disparate ethnic groups or residents of different regions may have unique physiologies and environmental factors that will influence the presentation of disease.
- ★ **Bringing Intelligence To Medical Devices And Machines:** In the medical environment, smart devices are critical for monitoring patients in the ICU and elsewhere. Using artificial intelligence to enhance the ability to identify deterioration, suggest that sepsis is taking hold, or sense the development of complications can significantly improve outcomes and may reduce costs related to hospital-acquired condition penalties. Inserting intelligent algorithms into these devices can reduce cognitive burdens for physicians while ensuring that patients receive care in as timely a manner as possible.



# ★ *The Big Image of AI impact on Healthcare*

The Common AI use cases are:

- ★ **Advancing The Use Of Immunotherapy For Cancer Treatment:** Machine learning algorithms and their ability to synthesize highly complex datasets may be able to illuminate new options for targeting therapies to an individual's unique genetic makeup.
- Turning The Electronic Health Record Into a Reliable Risk Predictor:** EHR analytics have produced many successful risk scoring and stratification tools, especially when researchers employ deep learning techniques to identify novel connections between seemingly unrelated datasets. But ensuring that those algorithms do not confirm hidden biases in the data is crucial for deploying tools that will truly improve clinical care, Obermeyer maintained.
- Monitoring Health Through Wearables and Personal Devices:** Almost all consumers now have access to devices with sensors that can collect valuable data about their health. From smartphones with step trackers to wearables that can track a heartbeat around the clock, a growing proportion of health-related data is generated on the go.  
Collecting and analyzing this data – and supplementing it with patient-provided information through apps and other home monitoring devices – can offer a unique perspective into individual and population health. Artificial intelligence will play a significant role in extracting actionable insights from this large and varied treasure trove of data.

# ★ *The Big Image of AI impact on Healthcare*

The Common AI use cases are:

- ★ **Making Smartphone Selfies Into Powerful Diagnostic Tools:** Continuing the theme of harnessing the power of portable devices, experts believe that images taken from smartphones and other consumer-grade sources will be an important supplement to clinical quality imaging – especially in underserved populations or developing nations.

The quality of cell phone cameras is increasing every year, and can produce images that are viable for analysis by artificial intelligence algorithms. Dermatology and ophthalmology are early beneficiaries of this trend.

Researchers in the United Kingdom have even developed a tool that identifies developmental diseases by analyzing images of a child's face. The algorithm can detect discrete features, such as a child's jaw line, eye and nose placement, and other attributes that might indicate a craniofacial abnormality. Currently, the tool can match the ordinary images to more than 90 disorders to provide clinical decision support.

- ★ **Revolutionizing Clinical Decision Making With Artificial Intelligence At The Bedside:** Artificial intelligence will provide much of the bedrock for that evolution by powering predictive analytics and clinical decision support tools that clue providers in to problems long before they might otherwise recognize the need to act. ★

- ★ AI can provide earlier warnings for conditions like seizures or sepsis, which often require intensive analysis of highly complex datasets. ★ ★

# ★ *Top AI Healthcare Companies, Products and Players*

## ★ Remedy Health:

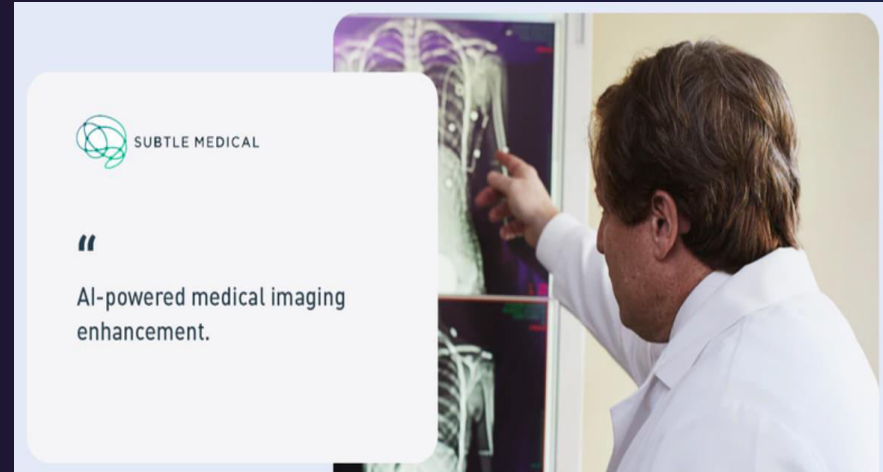
AI-assisted platform equips non-physician staff with clinical expertise to uncover hidden chronic diseases through phone screening interviews. Early diagnosis allows them to find the best fulcrum point for intervention to positively affect health outcomes and decrease cost. Finding undiagnosed patients will also drastically increase a health system's RAF scores and profitability.



# ★ *Top AI Healthcare Companies, Products and Players*

## ★ Subtle Medical :

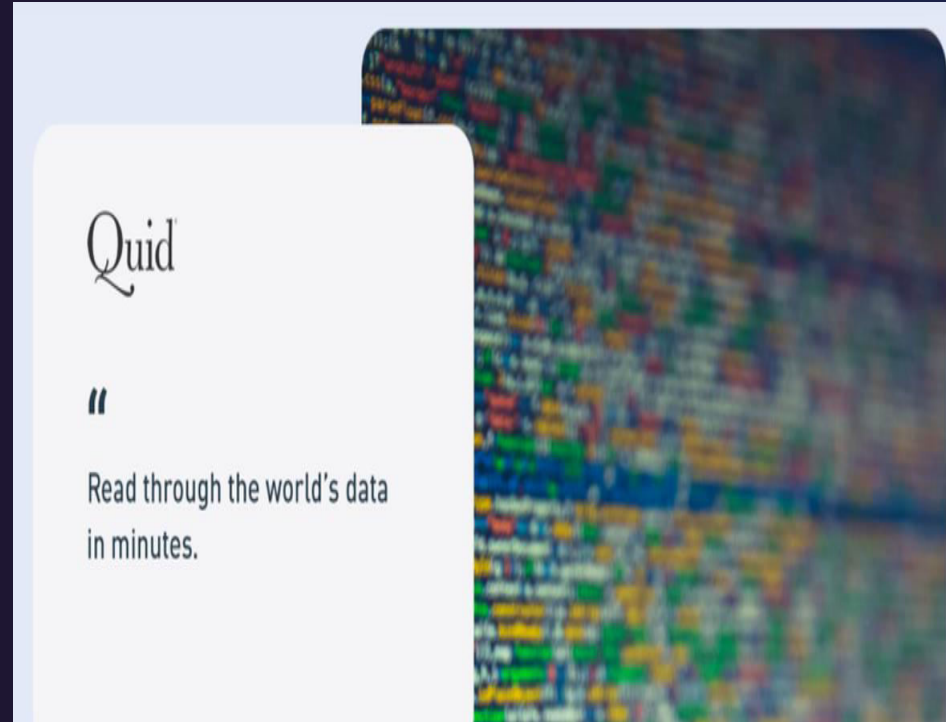
Subtle Medical has developed a suite of deep learning software solutions that enhance images during the acquisition phase of the radiology workflow, improving workflow efficiency and patient experience. SubtleMR and SubtlePET, both FDA cleared and CE Mark approved, utilize deep learning algorithms that integrate seamlessly with any scanner and PACS system with no change in the imaging specialists' workflow. SubtlePET and SubtleMR bring the latest imaging enhancement technology to existing scanners.



# ★ *Top AI Healthcare Companies, Products and Players*

## ★ Quid:

Quid inspires full-picture thinking by drawing connections across massive amounts of written content, enabling senior leaders to draw insights from big data (e.g., media, patents, employee reviews, analyst reports, company descriptions). Quid supports 300+ companies across the globe and was recently recognized by CNBC on their list of "2017's top 50 disruptors" (joining the ranks of Google and Airbnb in this unique honor).

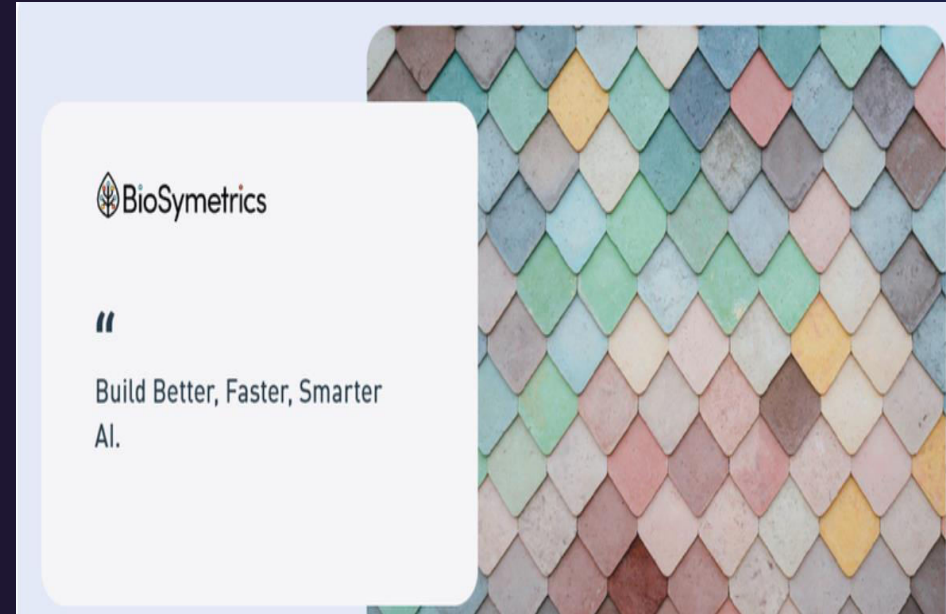


# ★ *Top AI Healthcare Companies, Products and Players*

## ★ BioSymetrics :

Traditional ML technologies are incompatible with biomedical raw data formats, and there are few standards for data standardization, normalization, and harmonization.

BioSymetrics solves this problem by deploying its primary solution, Augusta, which is a pre-processing and analytics platform that can process large amounts of data (siloes and raw data) for predictive analytics. This is useful for capturing the exabytes of data released from the 25B IoT devices and other biomedical data types (EEG, MRI and others) and deriving actionable insights from them.





# ★ *Top AI Healthcare Companies, Products and Players*

## ★ Sensely :

Sensely is an avatar-based, empathy-driven platform that leverages natural user interfaces to intelligently connect insurance plan members with advice and services. By utilizing Sensely's scalable platform technology architecture, insurance companies can converse with their members in an entirely new way, combining the empathy of human conversation with the efficiency and scalability of technology.





# ★ *Top AI Healthcare Companies, Products and Players*

## ★ InformAI :

InformAI is an AI company with a healthcare focus on products that speed up medical diagnosis at the point-of-care and improve radiologist productivity. InformAI's AI-enabled image classifiers and patient outcome predictors are developed within the world's largest medical center complex as well as with national physician groups and a leading medical imaging company. InformAI with its partners are transforming the way healthcare is being delivered.



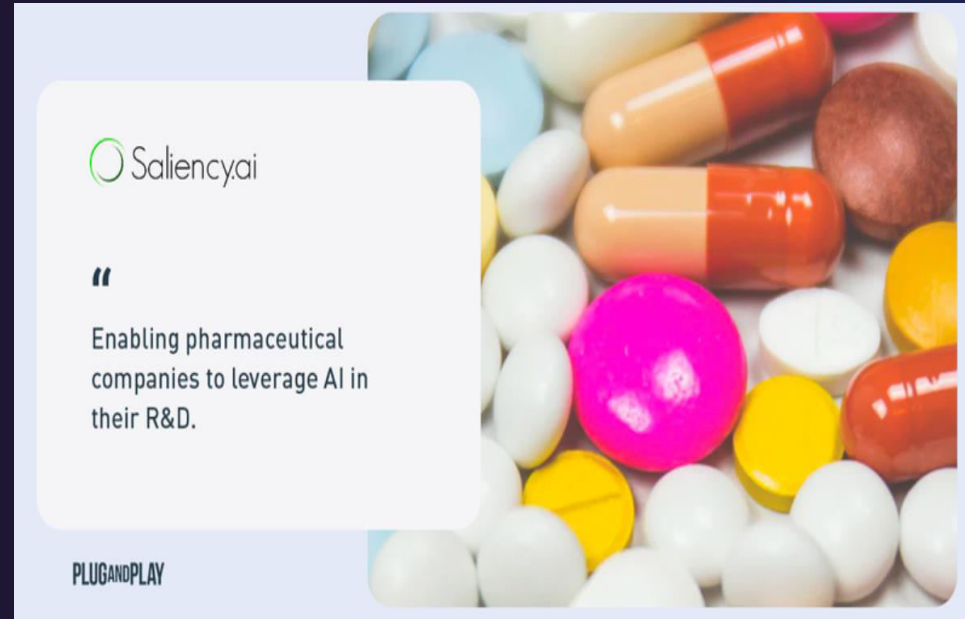
# ★ *Top AI Healthcare Companies, Products and Players*

## ★ SaliencyAI :

SaliencyAI enables pharmaceutical companies to leverage artificial intelligence in their R&D.

They provide a suite of tools that streamline each step in the data science pipeline for pharmaceutical companies:

1. Data Labeling
2. Data Unification
3. Training artificial intelligence models
- ★ 4. Deployment

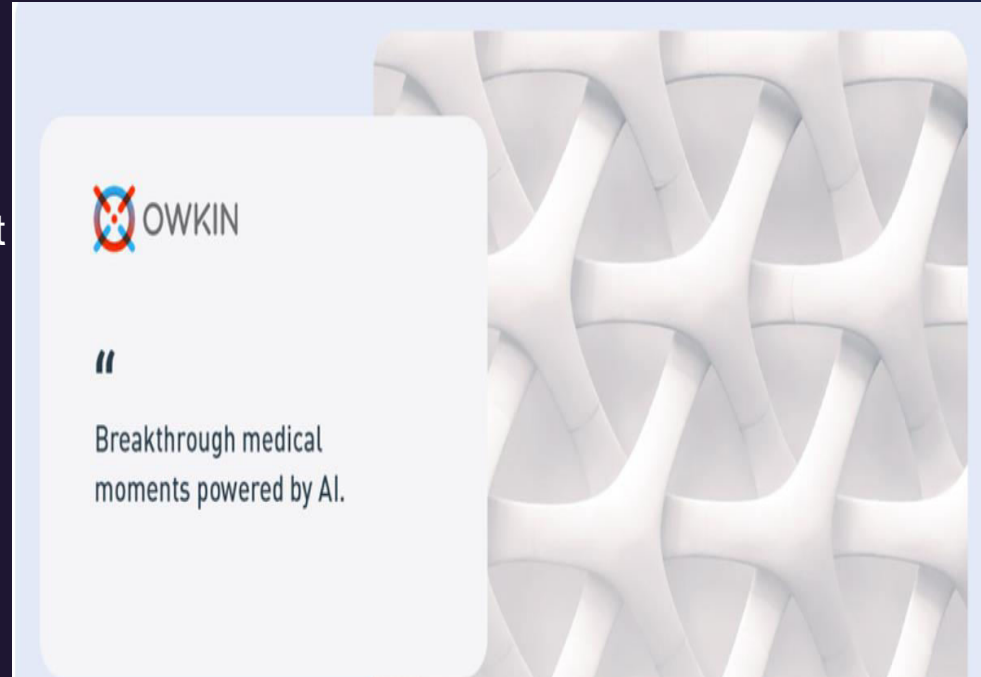


# ★ *Top AI Healthcare Companies, Products and Players*

## ★ Owkin :

Founded in 2016, Owkin combines life-science and machine learning expertise to make drug development and clinical trial design more targeted and more cost effective. Owkin's machine learning algorithms create models that predict disease evolution and treatment outcomes. These predictive models are used for enhanced analysis, surrogate endpoints, patient stratification and selection, and subgroup identification.

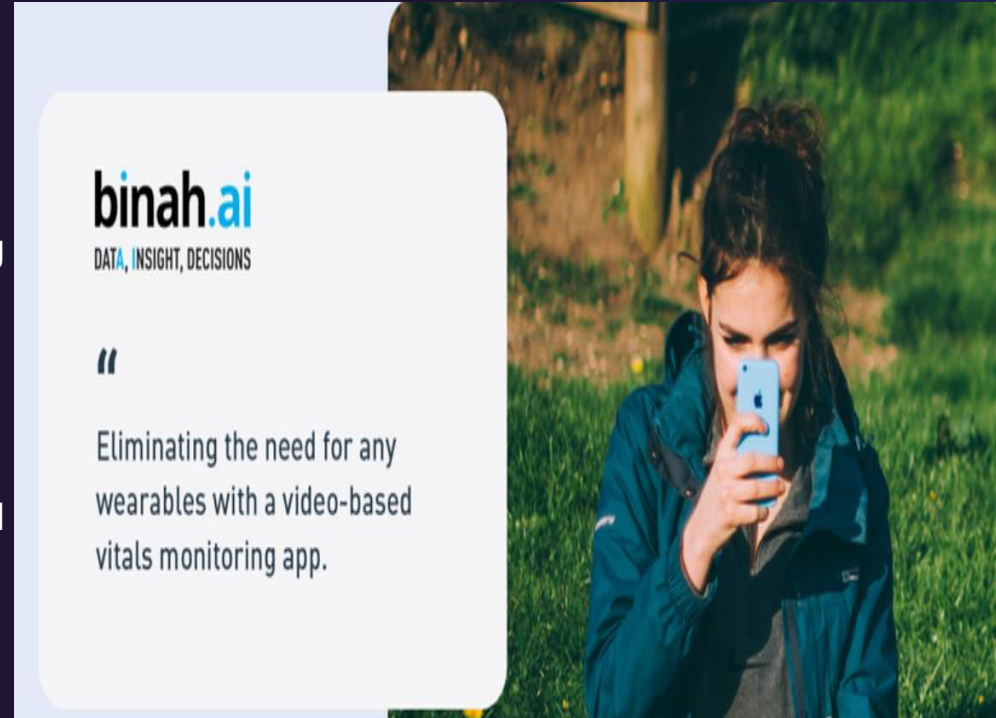
- ★ The impact of this research is faster discovery of better treatments at a lower cost.



# ★ *Top AI Healthcare Companies, Products and Players*

## ★ Binah.ai :

Binah.ai is shaping the future of Artificial Intelligence (AI) by simplifying and accelerating AI adoption with our world-leading expertise in machine and deep learning, signal processing and AI, addressing high-value problems in multiple Industries. Binah.ai has released a series of non-invasive, video-based health and wellness monitoring solutions. Binah.ai gives an unparalleled advantage in health analytics as its technology transforms any device equipped with a simple camera into a medical-grade healthcare gadget. The video-based digital health use cases include heart rate and heart rate variability (HRV) measurements, providing the data for stress measurements.









## ***Analysis & Recommendations:***

- ✦ • Using artificial intelligence in healthcare, the most widespread utilization of traditional machine learning is precision medicine.
- Artificial intelligence in healthcare that uses deep learning is also used for speech recognition in the form of natural language processing (NLP).
- A common use of artificial intelligence in healthcare involves NLP applications that can understand and classify clinical documentation. NLP systems can analyze unstructured clinical notes on patients, giving incredible insight into understanding quality, improving methods, and better results for patients.
- Expert systems usually entail human experts and engineers to build an extensive series of rules in a certain knowledge area. They function well up to a point and are easy to follow and process.
- Diagnosis and treatment of disease has been at the core of artificial intelligence AI in healthcare for the last 50 years. Early rule-based systems had potential to accurately diagnose and treat disease, but were not totally accepted for clinical practice. They were not significantly better at diagnosing than humans, and the integration was less than ideal with clinician workflows and health record systems.



## ***Analysis & Recommendations:***

- ✦ • The use of artificial intelligence in hospital settings is somewhat less game changing in this area as compared to patient care. But artificial intelligence in hospital administrative areas can provide substantial efficiencies.
  - AI in healthcare can be used for a variety of applications, including claims processing, clinical documentation, revenue cycle management and medical records management.
  - Another use of artificial intelligence in healthcare applicable to claims and payment administration is machine learning, which can be used for pairing data across different databases.
  - Insurers and providers must verify whether the millions of claims submitted daily are correct. Identifying and correcting coding issues and incorrect claims saves all parties time, money and resources.
  - ✦ • The greatest challenge to artificial intelligence AI in healthcare is not whether the technologies will be capable enough to be useful, but rather ensuring their adoption in daily clinical practice. In time, clinicians may migrate toward tasks that require unique human skills, tasks that require the highest level of cognitive function.
- 
- 
- 
- 

# HealthCare AI:



## Healthcare AI: Record funding in Q3'20

Disclosed deals & equity funding (\$M), Q1'15 – Q3'20

Funding amount (\$M)

\$2,500

\$2,000

\$1,500

\$1,000

\$500

\$0

Deal count

140

120

100

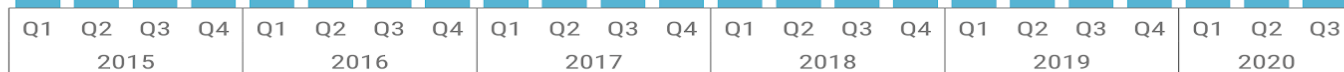
80

60

40

20

0



Source: cbinsights.com

CBINSIGHTS



# ***AI Healthcare Insights***

- ❑ AI has made medical Science improved significantly raising life expectancy around world.
- ❑ It has also gained significant traction during the pandemic, from adding scientific papers on coronaviruses to searching CT scans for Covid-19 diseases.
- ❑ Challenges of integrating AI into healthcare are closely related to the use of the data needed to provide AI systems.
- ❑ The quality of Digital infrastructure, affordability, and variable capacity among states and medical professionals are together likely to result in adoption of AI applications.

# AI for Automobile Coverage Mindmap





# *The Big Image of AI impact on Automobile*

✦ Below are the major Automobile sectors where AI is implemented.

## Manufacturing

Design

Supply Chain

Production

Post Production

## Transportation

Driver Assist

Autonomous Driving

Cloud Computing

Driver Risk Assessment

Driver Monitoring

## Service

Predictive Maintenance

Insurance



# *The Big Image of AI impact on Automobile*

Below are the Common AI use cases :

- **Driver assist:** With advanced driver-assist options, several of that area unit on the market in today's cars and trucks, AI systems alert drivers to venturesome road conditions, monitor blind spots within the driver's read, assist with steering, and take automatic actions to assist vehicles avoid accidents and dangerous things.
- **Autonomous vehicles:** In the automotive business, autonomous vehicles are the new grail. makers and their technology partners are operating overtime to develop AI-driven systems to alter self-driving cars and trucks. These systems incorporate a good vary of AI-enabled technologies, like deep learning neural networks, tongue process and gesture-control options, to produce the brains for vehicles which will safely drive themselves, with or while not an individual's driver on board.
- **Connected vehicles:** AI is an important technology for connected vehicles. as an example, AI will look forward to and predict part failures, thus vehicle makers and house owners will work proactively to avoid issues. It may offer drivers with location-based info and customized advertising to assist them notice the items they have. Similarly, AI-enabled systems will send driving and accident knowledge to insurance corporations, which could provide incentives for safe driving habits.
- **Manufacturing:** AI permits applications that span the automotive producing floor. Automakers will use AI-driven systems to form schedules and manage workflows, change robots to figure safely aboard humans on works floors and assembly lines, and establish defects in elements going into cars and trucks. These capabilities will facilitate makers cut back prices and period in production lines whereas delivering higher finished product to customers.



# *The Big Image of AI impact on Automobile*

Below are the Common AI use cases :

- **Quality control:** The AI system perpetually learns to enhance its analysis supported feedback,” McKinsey notes. “Using these ways, AI-powered hardware will visually examine and supply superior QC on numerous merchandise, like machined elements, painted automobile bodies, rough metal surfaces and additional.
- **Supply chain:** In today’s world economy, automotive makers have very complicated offer chains that span several geographies. Any glitches or breakdowns within the offer chain will be very expensive. With AI, makers will gain bigger management over their offer chains, together with processes for designing, logistics, inventory trailing and management. for instance, AI-driven systems will predict complicated interactions between production units and automatize requests for components, labor, tools and repairs.
- **Virtual desktop infrastructure (VDI):** The reach of HPC isn’t confined to servers and figure clusters in massive knowledge centers. It is wont to support remote visualization for multiple users on one, virtualized server running a spread a spread engineering applications and supporting VDI software package.
- **Safety:** HPC-powered simulation technologies area unit serving to makers to extend vehicle safety, whereas reducing style prices and timelines. Computer-generated simulations, for instance, change engineers to check new materials and valuate their structural properties, strengths and breaking points before they’re incorporated into a vehicle style. This wouldn’t be doable while not the procedure and image power of HPC systems that drive CAD and engineering applications.



# AI In Manufacturing Players, Companies, Projects

## Development

### Hyundai introduced AI powered wearable robots in the North American Factory

## Description

- In October 2018, Hyundai was testing Hyundai Chairless Exoskeleton (H-CEX) at North America factory.
- The company has developed wearable robots, service robots, and micro-mobility while utilizing robotic and AI technology. The company is planning to launch robots to charge electric vehicle and robots to sell vehicles.
- Exoskeleton will improve the productivity of the plant. This will help to decrease the use of waist and lower body muscles by 80%, reducing the fatigue.



## Development

### OTTO Motors introduced AI powered material handling system

## Description

- In 2016, Otto Motors, the US based (part of Clearpath Robotics) start up, introduced an intelligent material transport vehicle for manufacturing units. Intelligent vehicle incorporates AI technology (self-learning technology) to navigate autonomously around a manufacturing unit.
- The company is continuously updating its self driving vehicle. In 2018, it launched the self-driving vehicle for material handling with a payload of 750 kg.
- Improved the production capacity of the manufacturing plants with reduced accidents





# AI In Transportation Players, Companies, Projects

## Development

**Tesla introduced autopilot capability for model S car**

## Description

- In Oct 2015, Tesla launched 'Autopilot Driver Assistance System' with autopilot capability for their model S car.
- The company is continuously updating its software to improve self driving capability and safety of the passengers. Apart from that, the company also developed AI chips in-house in order to improve performance and safety of the car.



## Development

**NEXYAD introduced software for real time driver risk assessment**

## Description

- In 2016, the company introduced a technology powered by AI to calculate real time risk assessment of the driver.
- The software computes the risk 20 times per second and alert the driver to avoid potential emergency situation.





# AI In Services Players, Companies, Projects

## Development

### Predii introduced AI based predictive maintenance platform

## Description

- In 2017, Predii (it is an AI software company based in Palo Alto, CA) introduced intelligent platform for part replacement and repairs in the automotive industry.
- This intelligent platform utilizes historical service data (such as service orders, IOT data, technical manuals) for repair and maintenance vehicles.



# AI In Services Players, Companies, Projects

- **NUTONOMY: NAVIGATING COMPLEX TRAFFIC SITUATIONS:** nuTonomy's technology, nuCore allows for flexible and human-like vehicle handling (without the error). The software enables vehicles to navigate even the most complex traffic situations.
- **AUTOX: SELF-DRIVING GROCERY DELIVERY:** The company's vehicles combine AI software, sensors, real-time cameras and thousands of test miles, both virtual and real, to ensure safe decisions on the road.
- **DRIVE.AI: TRANSPORTING PASSENGERS ON FIXED ROUTES:** The purpose of the fleets is to transport passengers along fixed routes that are more easily monitored than personal autonomous vehicles, which need to stay updated with changes that can impact driving, such as construction, speed limits, accidents and road closures.
- **WAYMO: 360-DEGREE PERCEPTION TECHNOLOGY:** Beginning as Google's exploration of self-driving vehicles, Waymo is now its own company creating driverless vehicles that can safely deliver people from points A to B.
- **ZOOX: ROBOTIC RIDESHARING:** The cars are being produced to be a robotic rideshare vehicle. Similar to current transportation services like Uber or Lyft, a user would summon a Zoox vehicle for a ride through an app on their smartphone.

# *Analysis & Recommendations:*

- In AI with computing skills, we'll be able to see a replacement quite driving expertise.
- That is due to the great calculation ability that is ultimately in which engineers are obliged to design applications that have taken artificial intelligence at a completely different level of perfection
- Today's automotive business cannot bank only on careful drivers and different road users United Nations agency take all their steps fastidiously.
- The technology stack for each automobile is a very important step towards our safety and sensible expertise as automobile users.
- AI is revolutionizing the mobility sector with autonomous cars, advanced infotainment systems, and driver risk assessment.
- Conventional OEMs must think ways to maximize their revenue share in the future automotive market.
- Currently, technology companies are at the forefront, leveraging their AI experience (from matured sectors like ICT) to capture the autonomous vehicle market.

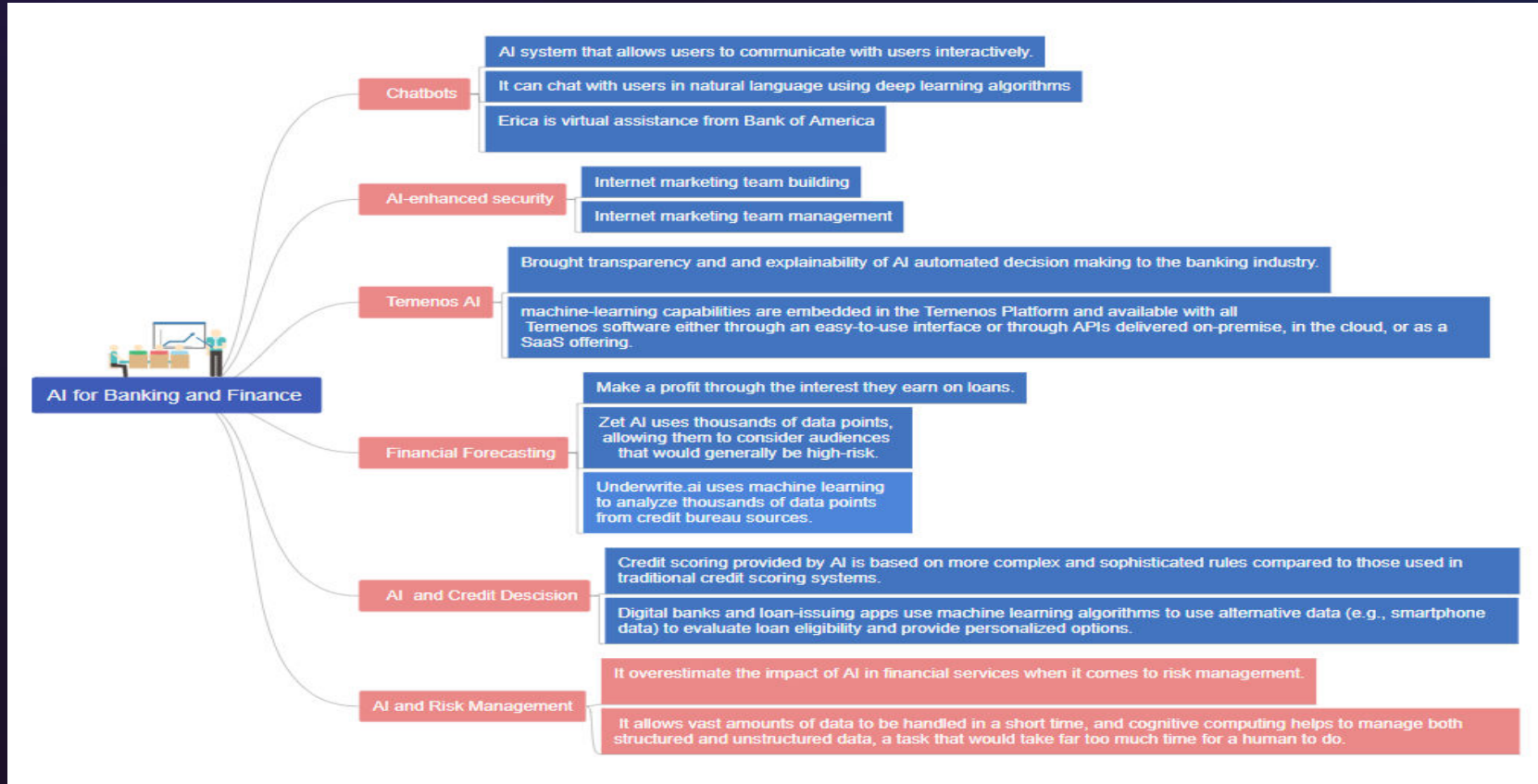
# *Analysis & Recommendations:*

- The industry's latest advancements come back from machine learning that improves the producing method and therefore the vehicles. New cars are unit each digital and mechanical.
- Machine learning can help car companies sell more vehicles. It can collect data about a customer like demographics, past transactions, and online activities, and create personalized promotions.
- Using machine learning, maintenance becomes "predictive." Instead of basing service on mileage or waiting until a car breaks down, sensors can detect damage and predict problems before they happen and notify drivers via the dashboard or their phones.
- Drivers can then schedule service at a convenient time for them.
- Using AI we can setup chatbots can also conduct surveys after service is done to help auto manufacturers and dealerships personalize service.
- Using different AI technologies and sensors monitor the car's activity as well as vehicles that are traveling nearby. The car can warn the driver of a dangerous situation or even take action.

# ***AI Automobile Insights***

1. Automobile AI isn't just about self-driving cars; data science and machine learning technologies but also to elaborate how AI can help keep auto organizations competitive by improving research to design manufacturing.
2. AI will play a massive role in R&D productivity, preventing expensive R&D projects doomed for failure. This makes very clear to automotive companies saving both time and money, both of which can be focused on projects with more potential as well as other machine learning and AI initiatives outside R&D.
3. When it comes to manufacturing, AI-based systems enable automakers to create and manage schedules more effectively. It also provide improved safety testing, and identify issues or faults in the components produced before travelling into vehicles.

# AI for Banking and Finance Mind map:





# The Big Image of AI impact on Banking & Finance:

## AI AND BANKING

FEAR NOT

### TOP REASONS BANKS USE ARTIFICIAL INTELLIGENCE



**DATA ANALYSIS  
& INSIGHT**  
**60%**



**INCREASED  
PRODUCTIVITY**  
**59%**



**COST BENEFITS  
/SAVINGS**  
**54%**

### ARTIFICIAL INTELLIGENCE PAYS OFF FOR BANKING

**CONNECTS  
THE DOTS**



AI computes and connects data sets to help banks make smarter, data-driven decisions for their clients.

**IMPROVES  
CLIENT EXPERIENCE**



AI helps streamline customer interactions (such as applying for a loan) by removing burdensome, manual steps.

**AI EMPOWERS  
EFFICIENCY**



AI isn't robots eliminating jobs. It helps bankers use data to be more productive and efficient.



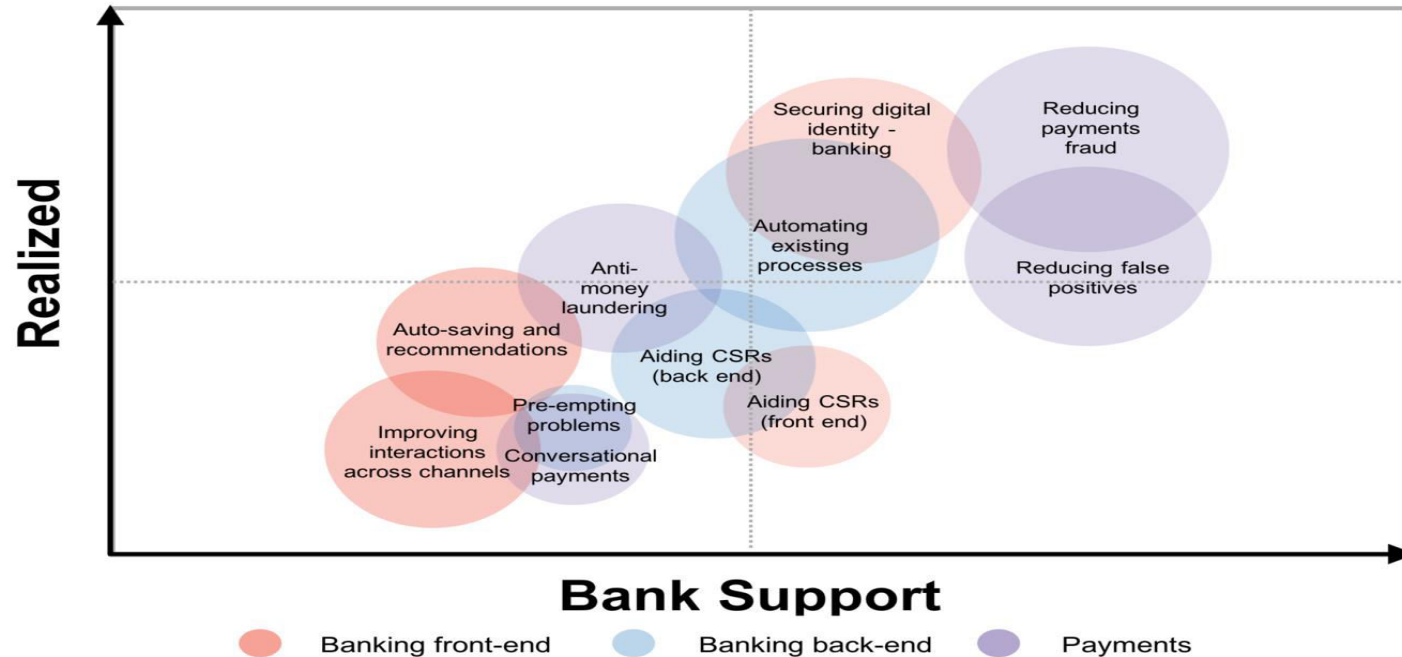
# *The Big Image of AI impact on Banking & Finance:*

✦ AI is strengthening the services of banks through:

- ✦ Enhanced customer experience: Using the history of data like conversations in the past, AI will help us to understand customers and their behavior appropriately which helps to customize financial products and services there by delivering personalized and meaningful customer engagement
- ✦ Forecasting Future trends: Using the prediction power of AI, banks can identify fraud, able to detect anti-money laundering patterns along with customer recommendations. AI is helping banks to predict whether or not a person can repay the loan based on several attributes of the customer like experience, previous repayment details, income etc.
- ✦ Cognitive Process automation: Using AI we can automate a variety of services and this will reduce cost and ensures accurate and fast processing of services at each step
- ✦ Effective decision making: Using cognitive systems which can think and respond like humans, we can get optimal solutions based on real time data. These will help to make strategic decisions
- ✦ Robotic automation process: This enables to automate 80% of redundant working processes there by allowing to dedicate the time in value-added operations which requires human intervention

# The Big Image of AI impact on Banking & Finance:

## Maturity Of Uses Of Artificial Intelligence In Banking And Payments



Size of bubble = Five-year potential ROI

Source: Estimated qualitatively by BI Intelligence analysts

BI INTELLIGENCE

# *The Big Image of AI impact on Banking & Finance:*

Some of the most popular examples of AI in Finance are:

- AI and Credit Card Decisions:
- Digital banks are using Machine Learning models to check the loan eligibility and provides the loan accordingly
- Automobile lending companies in the U.S. have reported that usage of AI will cut down the losses by 23% annually

**Machine Learning Can Increase Approvals, Cut Losses for Auto Lenders**

ZestFinance enables auto lenders to acquire more borrowers at lower cost and with lower risk. You can capture the benefits of machine learning-based underwriting quickly and safely while also satisfying compliance needs.

Several major auto lenders are using machine learning to achieve game-changing business results:

-  A top U.S. auto lender cut its losses by **23% annually**
-  Ford Motor Credit found machine learning could **more accurately predict risk** for thin-file borrowers
-  A U.S. subprime auto lender **reduced losses by over 25%**

Source: [tzeastfinance.com](https://tzeastfinance.com)

# *The Big Image of AI impact on Banking & Finance:*

Some of the most popular examples of AI in Finance are:

- AI and Trading:

- With the help of AI we can get the predictions for stock market performance more accurately because the algorithms will be trained based on the historical data

- With the help of advanced validation process we can make AI to help us in dealing the stock forecasting more accurately



Source: alpaca.ai

# *Major AI Tools used in Banking & Finance:*

- ✦ Chatbots:
  - Used to handle customers' questions 24/7 and these are used to meet the dynamic user expectations at a very minimal cost. They have made the conversational banking more convenient and automated
- Robotic Process Automation (RPA):
  - Through RPA, banks can manage their business operations reducing human efforts more effectively
  - In addition, RPA implementation will reduce the process turn out from weeks and months to minutes
- Digital Identity Verification:
  - With the help of DIV, banks are streamlining their KYC process enhancing the customer experience
  - Furthermore, the tools are highly efficient in prevention of fraud and spam activities ✦



# Major AI Applications used in Banking & Finance:

Application or Use case	Description
1) Enhancing Financial Monitoring	Provides a solution for solving the cyber risks involving a lot of money through machine learning
2) Making Investment Predictions	Allows to completely replace manual work by automating repetitive tasks through intelligent process automations
3) Ensuring Safe Transaction	Prevents fraud activities
4) Enabling Algorithmic Trading	Increase accuracy and reduces the chance of mistakes
5) Insisting on Better decision making	Helps customers to focus on sources where they can get more revenue
6) Amplifying marketing strategy	Provides insights on revenue growth by analysing previous activities



# Major AI companies & their goals in Banking & Finance:

- ✦ State Bank of India (SBI):
  - Their recent project in AI essentially scans cameras installed in the branch there by captures the facial expressions of the customers and gets the feedback stored in their database whether the customer is happy or not
- CIBC Bank:
  - They recently launched a AI powered virtual assistant that can be used to send money, pay bills and answer the questions daily. It is powered with IBM technology that can be used at scale and grow rapidly with the digital data
- ICICI Bank:
  - The software robots have reduced the response time to customers by up to 60% along with 100% increase in accuracy there by increasing bank's productivity and efficiency
- Axis Bank:
  - Their recent AI project's intent is to provide 27/7 assistance to the customers, instant gratification and convenience in a very native way ✦
- ✦ Thus the majority of the Banking and Financial companies are focusing on providing real time experience and 24/7 support to their customers digitally with the help of Chatbots and Voice assistants ✦



# ***Analysis of AI in Banking & Finance:***

- **✦ The usage of AI will give their customers to have 24/7 support along with the real time native experience**
- **As the data is growing exponentially, the usage of AI will help companies to predict the stock prices more accurately**
- **Many of the classification Machine Learning algorithms helps companies to build a classification model based on the historical data to predict whether the transaction are legit or spam**
- **Many of the classification Machine Learning algorithms helps companies to build a classification model based on the historical data to predict whether or not a person can repay the loan after disbursement of money and provides the loan accordingly**
- **Introducing AI apps will help the customers to monitor the accounts and transactions against many fraud transaction activities**



# ***AI for Banking and Finance Insights***

1. Finance Institutions have seen urge to introduce AI as institutions are in scramble to reduce bureaucracy but also increase accuracy and fairness of lending process.
2. We can see Novel AI-powered processes and products generate new revenue streams.
3. Multidimensional cross-jurisdictional fraud schemes are detected instantly.
4. Manceps can help financial institutions apply NLP to high volumes of text and speech data to gather information, gain insights, and streamline all the human intervention task.
5. Fraud detection systems can now actively learn and calibrate in response to new (or potential) security threats.

# ✦References :

- ✦ <https://www.futurebridge.com/industry/perspectives-mobility/artificial-intelligence-reshaping-the-automotive-industry/#:~:text=Currently%2C%20AI%20is%20being%20implemented,is%20transforming%20the%20transportation%20sector.>
- <https://builtin.com/artificial-intelligence/artificial-intelligence-automotive-industry>
- <https://www.cio.com/article/3355239/making-automotive-manufacturing-smarter-with-ai.html>
- <https://www.cdotrends.com/story/15326/impact-ai-automotive-industry?refresh=auto>
- <https://healthitanalytics.com/news/top-12-ways-artificial-intelligence-will-impact-healthcare>
- <https://www.healthcareitnews.com/news/3-charts-show-where-artificial-intelligence-making-impact-healthcare-right-now>
- <https://www.pluginandplaytechcenter.com/resources/7-leading-ai-healthcare-companies-2020/>
- ✦ <https://www.foreseemed.com/artificial-intelligence-in-healthcare>
- <https://www.wipro.com/business-process/why-banks-need-artificial-intelligence/>

# ✦References and Image Citations:

- ✦ <https://thumbor.forbes.com/thumbor/711x1066/https://blogs-images.forbes.com/franksorrentino/files/2018/02/CNOB-AI-content-2.23-1200x1800.jpg?width=960>
- ✦ <https://i.pinimg.com/originals/99/3d/1e/993d1e5682317f30043f8cf3eef89747.png>
- ✦ [https://miro.medium.com/max/875/0\\*yPMcBjZeBsoPsCvu.png](https://miro.medium.com/max/875/0*yPMcBjZeBsoPsCvu.png)
- ✦ [https://miro.medium.com/max/3000/0\\*8WT1pEyl-vbEI4-P.png](https://miro.medium.com/max/3000/0*8WT1pEyl-vbEI4-P.png)
- ✦ <https://towardsdatascience.com/the-growing-impact-of-ai-in-financial-services-six-examples-da386c0301b2>
- ✦ <https://www.quora.com/What-are-some-artificial-intelligence-tools-used-in-banks>
- ✦ <https://www.analyticsinsight.net/top-10-applications-machine-learning-finance-fintech/>
- ✦ <https://www.borndigital.com/2020/12/10/cibc-launches-ai-powered-virtual-assistant>
- ✦ <https://emerj.com/ai-sector-overviews/ai-applications-in-the-top-4-indian-banks/>

# *References and Image Citations:*

- <https://towardsdatascience.com/ai-use-cases-for-finance-and-banking-716b43082c5b>
- [https://www.cbinsights.com/research-retail-banks-ai-trends?utm\\_term=ai%20in%20financial%20services&utm\\_campaign=marketing\\_campaign\\_q3-2020\\_finservices&utm\\_source=adwords&utm\\_medium=ppc&utm\\_content=adwords-reports-APAC&hsa\\_tgt=aud-819312927263:kwd-369282778971&hsa\\_grp=109792881569&hsa\\_src=g&hsa\\_net=adwords&hsa\\_mt=e&hsa\\_ver=3&hsa\\_ad=471252360150&hsa\\_acc=5728918340&hsa\\_kw=ai%20in%20financial%20services&hsa\\_cam=270202443&gclid=CjwKCAjwgZuDBhBTEiwAXNofRNOpPnvLuh8Dbn4d\\_D7in9iaCuN1YWyo2YgGcnSv1nuXF\\_BrN1-2mxoCVVEQAvD\\_BwE](https://www.cbinsights.com/research-retail-banks-ai-trends?utm_term=ai%20in%20financial%20services&utm_campaign=marketing_campaign_q3-2020_finservices&utm_source=adwords&utm_medium=ppc&utm_content=adwords-reports-APAC&hsa_tgt=aud-819312927263:kwd-369282778971&hsa_grp=109792881569&hsa_src=g&hsa_net=adwords&hsa_mt=e&hsa_ver=3&hsa_ad=471252360150&hsa_acc=5728918340&hsa_kw=ai%20in%20financial%20services&hsa_cam=270202443&gclid=CjwKCAjwgZuDBhBTEiwAXNofRNOpPnvLuh8Dbn4d_D7in9iaCuN1YWyo2YgGcnSv1nuXF_BrN1-2mxoCVVEQAvD_BwE)
- <https://emerj.com/ai-sector-overviews/artificial-intelligence-in-finance-a-comprehensive-overview/>





***THANKS!***

