![MLAI Machine Learning Artificial Intelligence DIGITAL TRANSFORMATION]
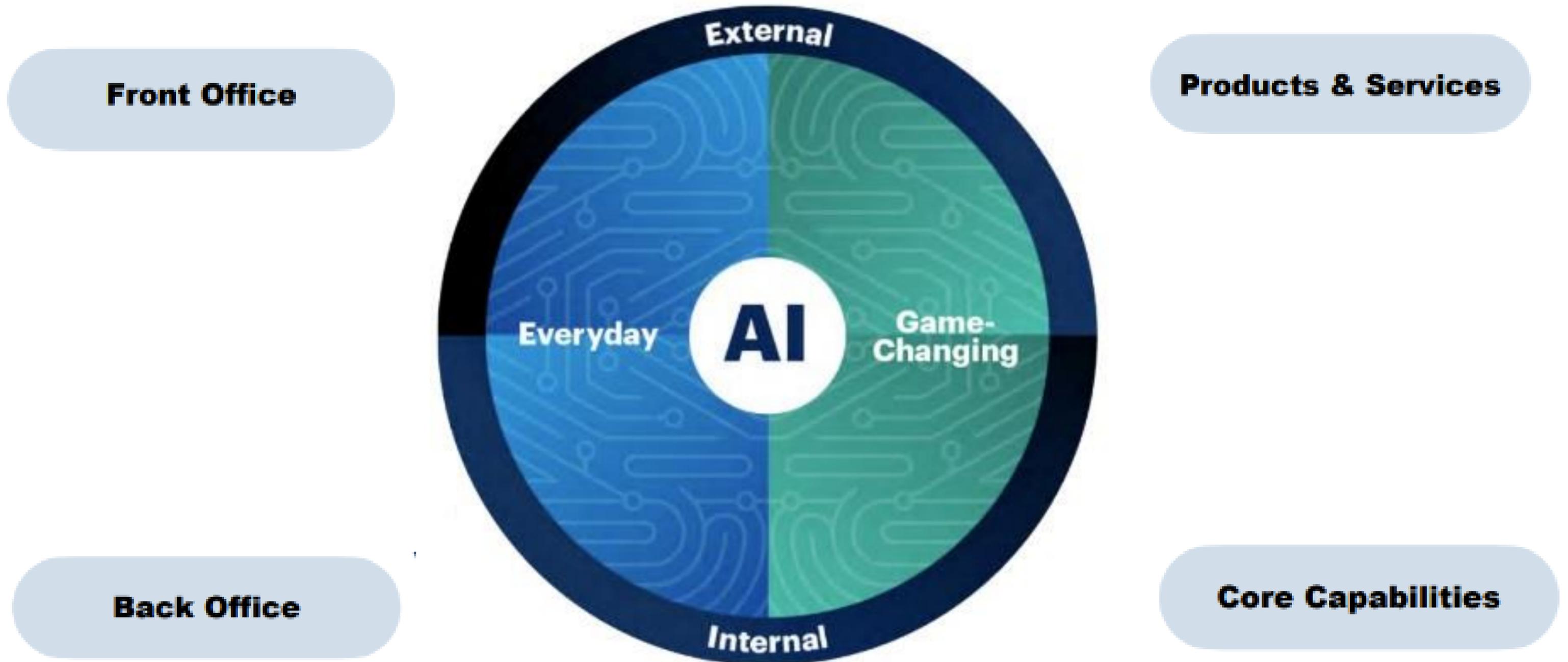
# Enabling AI Transformation

# For

# Financial Industry

# AI for Business

# Our Team

1. MLAI is an AI Startup with expertise on GenAI , ML , RPA , OCR , NLP & LLM
2. Various Financial firms have Implemented Business Impacting, AI use-cases with us, since last 5 years of our existence.
3. Microsoft's preferred partner for AI projects in India
4. Presence :  Delhi NCR (HO) , Mumbai, Bengaluru, Hyderabad
5. Team Size : 65

# Solutions

## GenAI Chatbots

Demand Generation

Customer Service

Employee Productivity

## Intelligent Automation

Call Center Analytics

AI-KYC

PIVC

## Projects

Data Lake

RPA

Staffing

# AI Powered Chat-Bot for CX

1. Improved Customer Experience :
   a) GPT based AI Bots giving near-Human responses, much better than normal search
   b) Consistency – same, accurate information – everytime
   c) Personalization – given a customer history , AI Bot customizes responses for each user
   d) Quick response – AI's capability to churn data is much higher than Humans
2. Web Monetization : A prospect getting all questions answered, has higher chances of buying
3. Customer Insight :
   a) Chat bot logs have rich details of customer behaviour and deciding factors. Product / Sales campaign can be modified accordingly
4. Efficiency :
   a) Scalability – AI Bot will not slow down even as customers increase
   b) One Stop solution for all customers visiting Website
   c) Cost-effectiveness – reduced operation cost, releasing human resources for more complex tasks

……and ultimately Competitive Advantage

# AI Powered Chat-Bot for Employees

1. Reliability :

   a) 24x7 availability - round the clock

   b) Consistency – consistent information and responses, ensuring uniform customer service quality

   c) Instant response -minimizing wait times

   d) Contextual response – near-human response

2. Better User experience :

   1. Wow Factor – very often, Humans will not compete with AI , specifically with large number of documents

   2. Reduced error : Lower error rate compared to humans, ensuring accurate information delivery

   3. Personalization : AI learn from interactions, giving personalized responses basis preferences and past interactions.

3. Cost :

   1. Efficiency – while Chatbot handles routine queries, complex , strategic issues are left for humans

   2. Scalability - Chatbots can handle multiple queries simultaneously, allowing for scalability

   ……and ultimately

# Enhanced Employee Productivity

# Universal Chat-Bot

## Outputs as :

1. Text
2. Voice
3. Avatar
4. Graphs

## Inputs as :

1. PDF
2. Excel
3. Word
4. Webpages
5. Audio
6. Video
7. Drawings
8. Hand-written Docs
9. Any CRM via API

15+ Indian Languages

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All Major Foreign languages

# ChatBot Demo

## Text based



## Avatar based

# AI powered KYC

Trade Finance Automation using OCR and ML

Retail and Corporate Onboarding using OCR of KYC Documents

AI Based Signature Verification and Matching

Government APIs integration



Automated Technologies Used in Digital Onboarding For Banks

**Data Collection**
- Robotic Process Automation
- Intelligent Document Processing
- Business Process Automation

**KYC Due Diligence and Screening**
- Optical Character Recognition
- Machine Learning and NLP
- Business Rules Automation

**Onboarding Decision**
- Government API Integration
- Validation through Regulatory APIs

**Risk Rating**
- Underwriting Rails using Bureau APIs
- ML Based Analytics

# AI powered KYC & signature validation
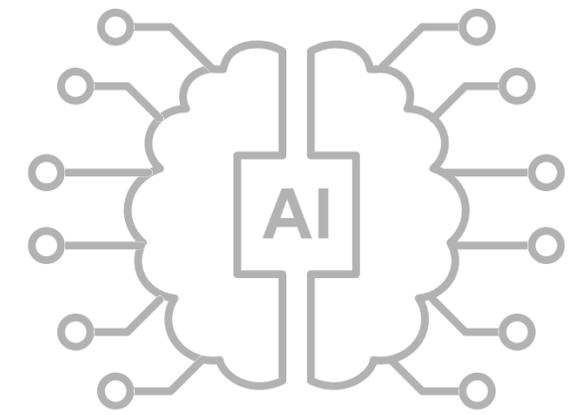


**New Customer Onboarding using OCR of Bank Documents**

We have developed AI Solutions which uses OCR & ICR and can extract Information from Various Bank Documents which helps in expediting Customer Onboarding. For e.g. Reading data from Cheques, KYC Documents, Account Statements. Final data is Validated with Government & Regulatory APIs and pushed to Downstream Applications.
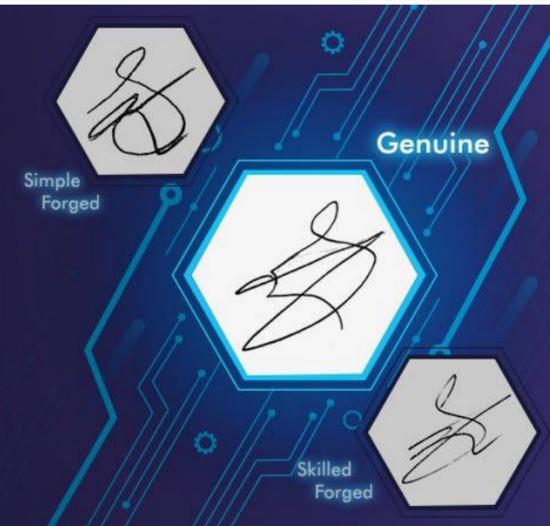Volume – 5L Docs/Day

## Signature Detection and Matching

- Anomaly Detection in Documents
- Signature and Stamp Detection and Extraction
- Signature Matching

Volume - 10K/Day



Signature Fraud Detection Using **Artificial Intelligence**

Simple Forged   Genuine   Skilled Forged

mlaidigital.com

# Multi-Lingual OCR with LLM



**Accuracy for OCR for Printed Documents – 98%**

300 Types of Bank Documents

**Both Structured and Unstructured Documents**

OCR Languages:-

# Call Centre Analytics



**NLP & AI Based Call Center Analytics Solution**

Tech - Speech Recognition and ML/DL

- Use of Cloud Speech Recognition APIs to Convert Speech into Text
- ML for Pre-Processing
- NLP for Sentiment and Semantic Analytics
- ML based QA Analytics and Score Generation
- Data Visualization on PowerBI Dashboard
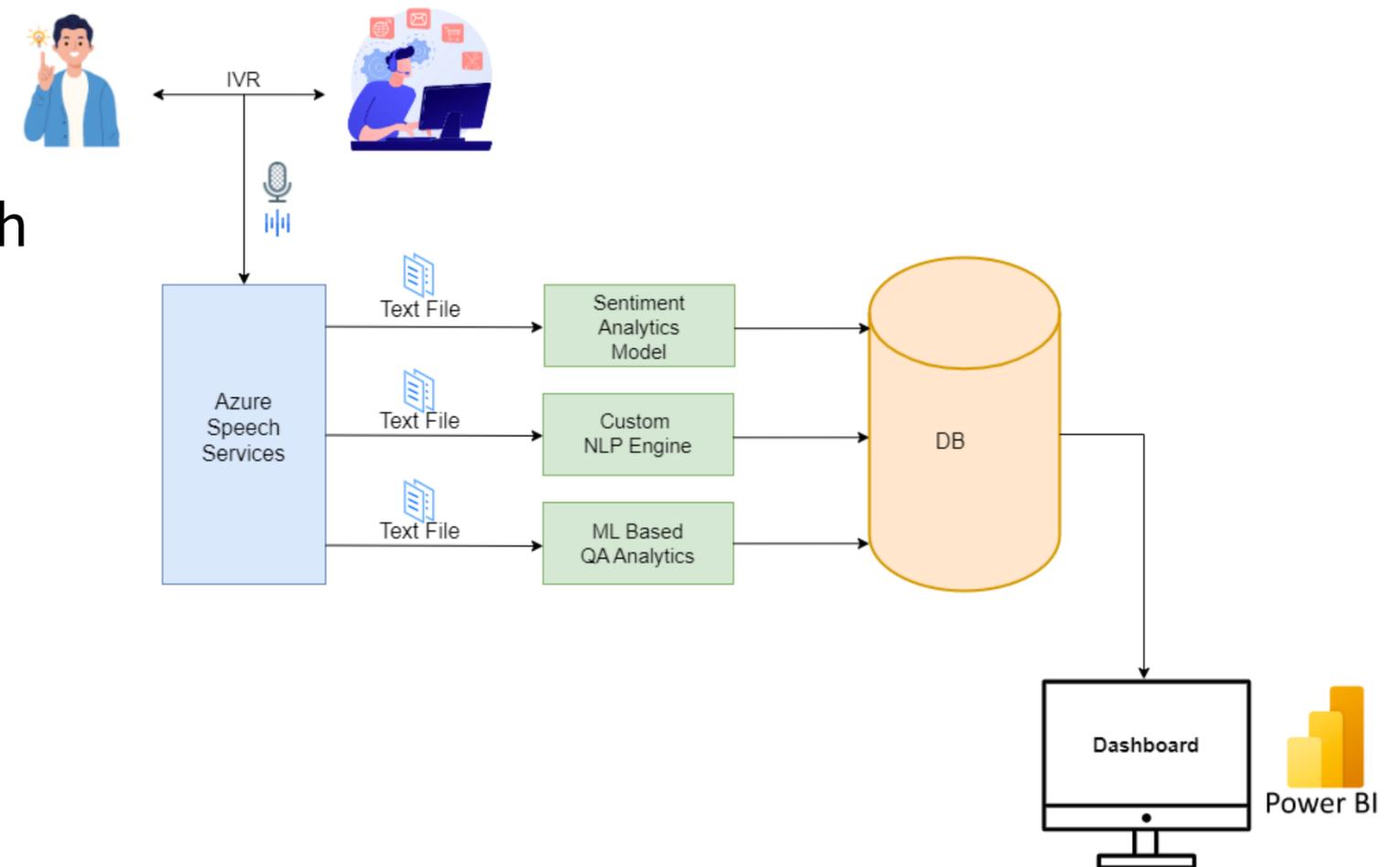


Client - One of the **Top Life and Health Insurance Company** in the Country

# LLM based Cognitive search



## AI Based Cheque Processing(IINWARD/OUTWARD) using Cognitive Engine

- Tech - **OCR** and ML/DL
- OCR to Extract Data from the Bank Cheques.
- ML for Business Rule Validation
- Integration with Mobile App

Details to be extracted:-

1. Payee Name
2. Amount in words
3. Amount in Numbers
4. Cheque Date
5. Account Number
6. All the Numbers in the Last line - MICR Code
7. Bank Name and IFSC
8. Account Holder Name
9. Date



## AI Based Receipts/Bill Processing using OCR

- Tech - OCR and ML/DL
- OCR to Extract Data from the Bills and Receipts.
- Integration with Mobile App

# Azure-OpenAI Use Cases

## Document Search for ICICI Bank

A common use case where banks receive large documents with approximately 1000 pages and a user is trying to search some relevant information out of it. Azure OpenAI  is the best platform as it parses (OCR sometimes) through this data and gives accurate information to the user at the earliest. The Open AI version used is GPT 3.5 Turbo

## Website Search for Aditya Birla

A mutual fund user requires a lot of information on a daily basis and the same can be a tedious task if he has to read a lot of data to gather this information. Azure OpenAI is used in the form of Chatbot which crawls data from the website and gives accurate information to the user at the earliest. it could be in the form of text, image, charts or tabular data. The Open AI version used is GPT 3.5 Turbo

## Image Search and Vice Versa

Chatbot is used to generate data from the knowledge base present on the website for the image provided. In case of text it will share the image associated with it.

## Conversation AI using GPT for a Health Insurance Company

We have used OpenAI as a core NLP technique to run behind Cognitive Speech Services which fetches information from the Website of the Health Insurance company and provide the information as a voice note

# OUR CORE COMPETENCY ON

## Azure

### Data Services

- Azure Databricks
- Azure Datapipeline
- Azure Datafactory
- Azure BLOB
- Azure Cosmos DB
- Azure Synapse
- Azure Machine Learning
- Azure Questions Answering

### Infra Services

- Azure VM/Kubenetes
- Azure SQL Server
- Azure Functions
- Azure App Service
- Azure IoT Hub

### Cognitive Services

- Azure Speech Service
- Azure Read OCR
- Azure Form Recogniser
- Azure Sentiment Analysis
- Azure Cognitive Search
- Azure Face API

## DocAI Use Cases

- AI-KYC – Onboarding of Customers at Bank using KYC Documents
- OCR of Bank Cheques and Account Statements
- Trade Finance Documents OCR and **LLM**
- OCR of Invoices and Receipts
- Signature/Stamp Detection and Validation
- OCR of Unstructured Documents using **LLM and GenAI**

## CCAI Use Cases

- **ChatGPT and Azure-OpenAI**
- Automatic Speech Recognition in integration with IVR
- Conversational AI and Smart VoiceBots
- NLP Based NER, Sentiment Analytics and Recommendation Engine
- Call Center Analytics with Analytics and Protocol Adherence

# Robotic Process Automation ( RPA )

## Capabilities on :

1. Power-Automate
2. UiPath
3. Automation Anywhere
4. Domain Expertise on Banking / Insurance / NBFCs
5. End to end solution

## Projects done :

1. SwiftBot - International payment status checking
2. Checking EMI clearance status
3. Legal document preparation
4. Checking OTP delivery status
5. Loan pre-closure

# Staffing Solutions

## Profiles available

1. Share-point developer
2. Python developer
3. Ui Path Business Analyst
4. Power Automate Developer
5. Computer Vision Engineer
6. GCP Engineer
7. Dot Net Developer etc.

# Data [Lake](#) using MS  Fabric

# Some Customers

# Contact for Demo & Details

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