

# TMA AI CENTER

- Overview
- Services
- Technologies
- Solutions
- Industries



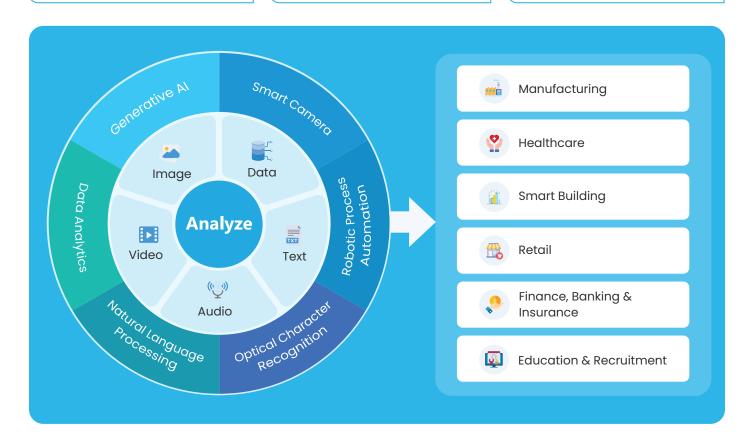
10 years of experience



Clients from **2** countries



**Engineers** 





R&D PoC/Prototype Development

Al Application Development

Al Solutions for Enterprises

Al Roadmap









#### Math & Statistics ML

- Supervised learning: Linear Regression, SVM, Decision Tree, Gradient Boosted, LDA, UMAP
- Unsupervised learning: PCA, t-SNE, UMAP, KNN, K-means clustering, Hierarchical clustering
- Reinforcement learning: Markov decision process, Q-Learning and Deep Q-Networks
- Mel-Spectrograms, Sound waves processing, Fourier Transform, Dynamic Time Warping, HuBert

## **Deep Learning**

- Models: CNN, RNN, GAN, LSTM, Autoencoders, Transformers & Latent **Analysis**
- Frameworks: Tensorflow, Keras, Pytorch, Spacy
- Generative AI: ChatGPT/OpenAI

### **Edge Al**

- Model Optimization: TensorRT, OpenVINO
- Mobile: Tensorflow Lite, Pytorch Mobile
- Edge Devices: Raspberry Pi, Jetson Nano, Intel NCS
- NVIDIA Metropolis, Deepstream, TAO **Toolkit**

## MLaaS/MLops

- SAS
- Google Cloud Al

- Microsoft Azure Al
- **AWS AI**

## **Predictive Analytics**

- Regression
- Classification

- Clustering
- Time Series

Computer Vision

NLP | OCR

Generative AI LLM









#### **Generative Al**

**Content Generation** 

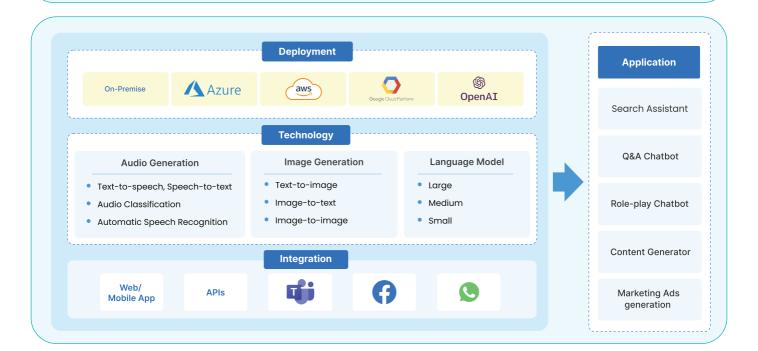
Smart learning tool	Text summary & classification		Market analysis	
Calendar/ email/ chat integration	Social media post generation		Course builder	
Email marketing assistant		Business sentiment analysis		

**Chatbot Assistant** 

Academic assistant		line training assistant	Role-playi chatbot pla		Call center agent
Smart assistant		Smart UI		S	afety system

Search and recommendation

**Application lifecycle** Healthcare virtual Smart data query **RPA with ChatGPT** management











### **Smart camera**

Face recognition/ facial expression	Age/ gender prediction	
Personal protective equipment detection	Trespassing & vandalism detection	
People in restricted area	Security & Safety	
Violation detection	Crowd detection	
Weapon detection	Children/ pet detection	
Defect detection	Truck monitoring	
Parking lot detection	License plate recognition	



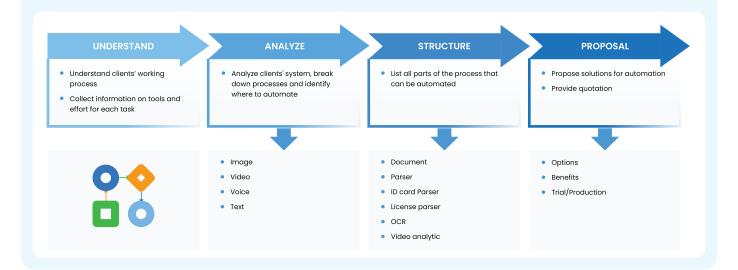






#### **Robotic Process Automation**

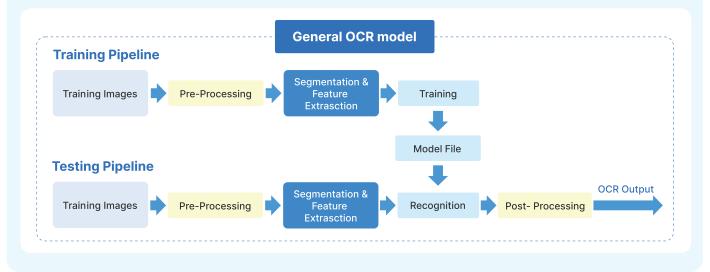
- **Automatic CV input**
- **COD** automation
- Logistics data process
- Debt reminder
- Finance report mismatch detection
- Inventory alert
- Invoices data process
- Stock monitoring notification
- Insurance claim payment process
- Certificate of conformity data input



#### **OCR & NLP**

- Structured & unstructured documents
- Voice analytics
- Medical prescription
- Invoice, receipt

- Content extraction
- Logo matching, Product/ brand detection
- Resumes
- ID card, passport









## Al for Manufacturing

Personal protective Access control equipment

Safety solutions

Behavior analytics

Product quality control

Machine optimization

Predictive maintenance

CAD digitalization

Vehicle detection

Parking lot detection

License plate recognition



Al for Healthcare								
Healthcare chatbot solutions	Inbody parser	Prescription parser						
Health device monitor parser	Heart rate analysis	Sleep analysis						
Call center assistant	Early health abnormalities detection	Tooth status evaluation						









## **AI for Smart Building**

Residential & staff access control

Guest access control

Elevator access control



Trespassing & vandalism detection

Smart locker

Operation data analytics

### **Al for Retail**

Shopping assistant

Product recommendation

Smart locker

Customer feedback collection

Warehouse access control

People detection & Traffic tracking

People counting

Age & gender detection

Product & brand detection

People heatmap

Smart call center assistant









## Al for Finance, Banking & Insurance

Automated financial report

Credit scoring & risk assessment

Predictive analytics

Vault access control

Call center assistant

Debt reminder

Insurance claim payment process

Finance report mismatches detection

Identity card & driver's license parser

Bank & tax statement OCR

Stock monitoring notification



### Al for Education & Recruitment

Course finder assistant

CV matching

Job recommendation

Learning path recommendation

Student behavior tracking

Academic assistant for LMS

Auto grading assessment



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