

COGNITIVE VIDEO SERVICES FRAMEWORK

Accurate | Automated | Scalable

Smart City

Identify and predict mishaps, elderly and kid assistors, crowd sentiment analytics, digital signage, fraud detection, traffic management, enterprise access control, smart building appliances.

Key Technologies

- Energy optimization using Deep Reinforcement learning
- Hyper personalized customer experience through behavioral pattern recognition
- Real-time object tracking
- Face, age, gender and emotion recognition



Automotive

Thinking cars, connected driving, behaviour-based insurance, collision detection, visible side assist, edge or post processing in the cloud.

Key Technologies

- AI based annotations with Hierarchical Object Tagging for ADAS testing
- Generative Adversarial Network (GAN) based training data generation
- Driver attention and behavior monitoring
- Cabin monitoring system

Broadcast & Operators

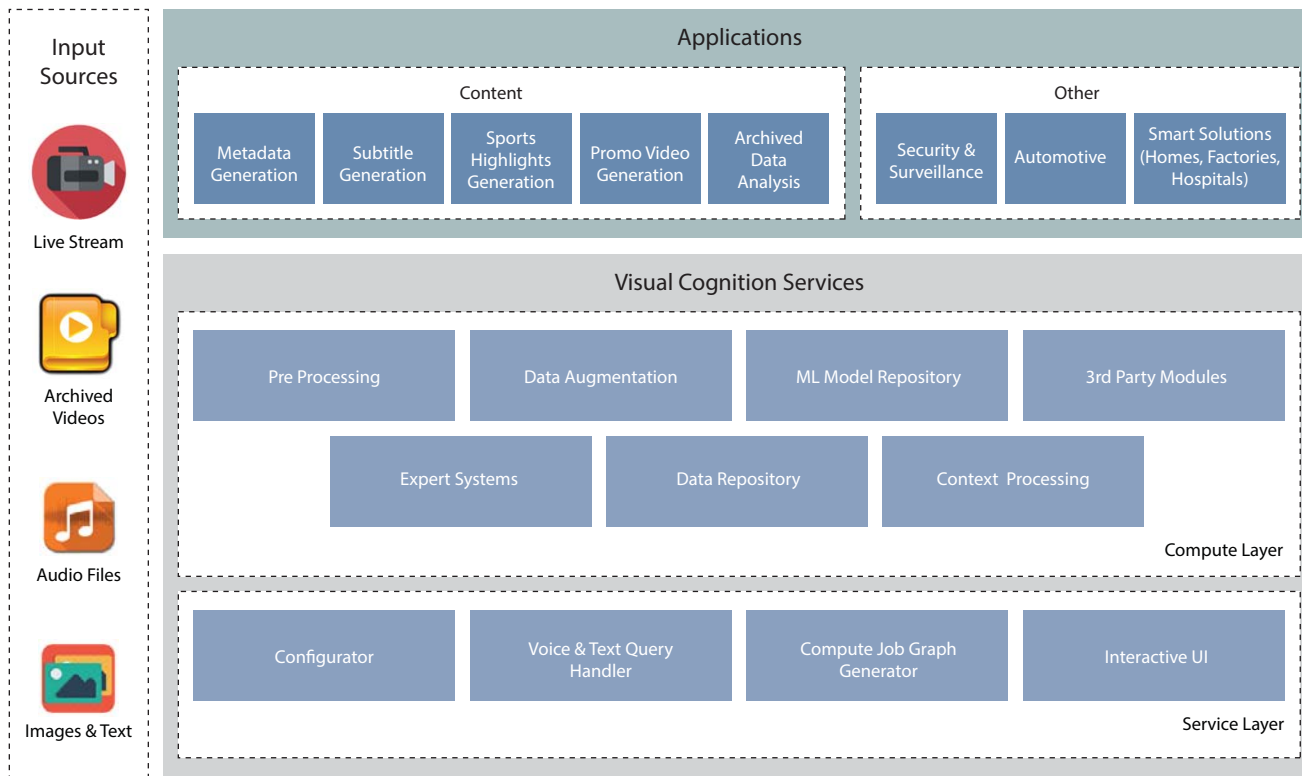
Highlights generation, immersive and targeted advertising, closed caption creation for hearing impaired audience, interactive gaming analytics, content performance (interest, emotion, attentiveness, demography).

Key Technologies

- Annotating archived videos (Metadata generation)
- Content curation – converting long videos to short watchables for Catch Up TV)
- Content moderation (detect explicit content)



COGNITIVE VIDEO SERVICES FRAMEWORK



- Supports broadly three classes of use cases – general meta tagging, highlights and security & surveillance
- Scalable architecture which supports Restful APIs to interface with third party developer tool chains

- Large repository of trained AI models (including transfer learning) for object/ scene/ action/ face identification
- Several times reduction in manual tagging efforts

The Analytics Challenge

Highlights generation, immersive and targeted advertising, closed caption creation for hearing impaired audience, interactive gaming analytics, content performance (interest, emotion, attentiveness, demography).

- Millions of hours of video data needs tagging for easy search and insights generation
- Conventional metadata generation process is manual and extremely slow
- Most of the available tools are not customizable for specific requirements and have a very limited use case support

AI: The Key to the New World

Machine Vision along with Neural Networks like CNN, RNN help in understanding visual content and generates useful metadata such as objects, actions, descriptions, face recognition & scenes.

Natural Language Processing (NLP)/ Natural Language Understanding (NLU) methods are used to analyse audio and textual data and automate workflows.

Anomaly detection systems can track hundreds of parameters simultaneously and analyze any abnormal trending of individual parameters.