



Attractive thumbnail extraction from videos using iFusion™ to boost user engagement

Client Need

Client, a digital marketing player that leverages neuroscience, data analytics, and machine learning technology, boosts video and image performance to generate high levels of user engagement. The client can also personalize content based on age, gender, location and device.

Client needed a solution that could surface the best frame from a video to serve as a thumbnail automatically.

What we Did

Developed a deep learning-based model using iFusion™ that considers 1000s of features reflecting emotional response of humans to visuals such as subject attention, instability, composition, use of color, and presence of specific lighting features.



The solution development included



Storing all videos, adding meta data and, indexing for retrieval



Adding the videos to seed library to perform similar image search



Extracting frames from videos and time window them using video processing



Establishing pipeline for taking input videos and feeding them to the emotion response scoring algorithm in real time and batch



Writing back the emotional response scores to the videos



Searching and reporting capabilities on the response scores



Ranking of the thumbnails in the order of relevance

What the Client Gained

- Increased clicks, likes and shares leading to higher user engagement



Hadoop cluster management for development and production with high availability and performant

Automated build process through Airflow and comparison with Oozie

Technologies Used

Re-engineering of data pipelines and optimization of MapReduce

Impala query performance tuning and acceleration

Development and operations of the cluster on Amazon and automation through the APIs

About Innominds

Innominds is an AI-first, platform-led digital transformation and full cycle product engineering services company headquartered in San Jose, CA. Innominds powers the Digital Next initiatives of global enterprises, software product companies, OEMs and ODMs with integrated expertise in devices and embedded engineering, software apps and product engineering, analytics and data engineering, quality engineering, and cloud and devops, security. It works with ISVs to build next-generation products, SaaSify, transform total experience, and add cognitive analytics to applications.