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Patent Search

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Abstract:

The invention discloses an AI-driven framework tailored for the scalable analysis and annotation of video content. By integrating advanced artificial intelligence techniques, including deep learning, computer vision, and natural language processing, the framework automates the extraction of meaningful insights from video data. Key components of the framework include modules for video ingestion, visual and audio analysis, natural language processing, and annotation/indexing. This innovative solution addresses the challenges associated with manual video analysis, enabling efficient processing of large video datasets for applications such as video search, content recommendation, and automated video summarization. Accompanied Drawing [FIGS. 1-2]

Complete Specification

Description:[001] The invention pertains to the field of artificial intelligence (AI) and video processing technology. Specifically, it relates to a novel framework for scalable video content analysis and annotation using advanced AI techniques. The framework addresses the growing need for efficient and automated methods to analyze and annotate large volumes of video data. By leveraging deep learning, computer vision, and natural language processing, the invention offers a comprehensive solution for extracting meaningful information from video content and generating descriptive metadata.

[002] In today's digital age, the consumption of video content has surged across various platforms, including social media, streaming services, and online education portals. However, the manual analysis and annotation of this vast amount of video data pose significant challenges in terms of time, resources, and accuracy. Traditional methods for video analysis often rely on labor-intensive processes such as manual tagging or keyword-based search, which are not scalable and may not capture the richness of video content. There is a pressing need for automated solutions that can efficiently process video data at scale while ensuring accurate and comprehensive analysis.

[003] The proposed invention addresses these challenges by introducing an AI-driven framework that streamlines the process of video content analysis and annotation. By integrating advanced AI techniques into a scalable architecture, the framework enables rapid and accurate processing of large volumes of video data. The invention encompasses several key components, including video ingestion, visual analysis, audio analysis, natural language processing, and annotation/indexing modules, which work together to extract, analyze, and annotate video content automatically.

[004] The invention has broad applications across various industries and domains. In the media and entertainment sector, the framework can be used for automated video tagging, content recommendation, and personalized video experiences. In surveillance and security applications, it facilitates real-time video monitoring, anomaly

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