

VizzAI

Ask questions about any YouTube video!

Load YouTube Video

Paste YouTube URL here...

LOAD VIDEO

Ask Questions

Welcome!

Load a video above and start asking questions

"What is this video about?"

"What color is the car?"

"Summarize the main points"

Ask any question about the video...

ASK

VizzAI

AI platform that analyzes videos and answers questions,
transforming how we interact with YouTube.

By: Raahim Khan



The Problem: Information Overload

Time-consuming Search

Users waste hours finding specific video info.

Limited Tools

Existing solutions ignore visual content.

Manual Timestamps

Creating timestamps is slow and tedious.

Unindexed Content

Billions of video hours lack searchability.

VizzAI: The Intelligent Solution

Smart Question Routing

AI detects visual or text questions.

Multi-Modal Analysis

Combines speech transcripts with visual frames.

Intelligent Caching

Processes videos once, instant answers always.

Auto-Generated Chapters

Creates clickable timestamps automatically.

3-Layer Fallback

Ensures high transcript extraction success.



Ask Questions

AI Learns to Walk (deep reinforcement learning)

You

What is the name of the AI?

AI

TEXT

The AI's name is Albert, as stated clearly at 0:00:00 .

You

What does Albert look like?

AI

VISUAL

Alright, I've carefully reviewed the visual frames and audio transcript of the video to describe what Albert looks like. Initially, as stated in the audio at 0:00:00 and shown visually, Albert appears as a white, blocky, quadrupedal robot with black spherical joints. As the video progresses, specifically around 0:00:30 , Albert is shown learning to move, initially doing "the worm," which looks like a segmented orange block with articulating limbs. Later, when the punishment for hitting the ground is introduced, around

Ask any question about the video...

ASK

Ask about content, visuals, or request summaries!

Smart Question Routing



"What did he say about cars?"

Routes to faster text analysis.



"What color is the car?"

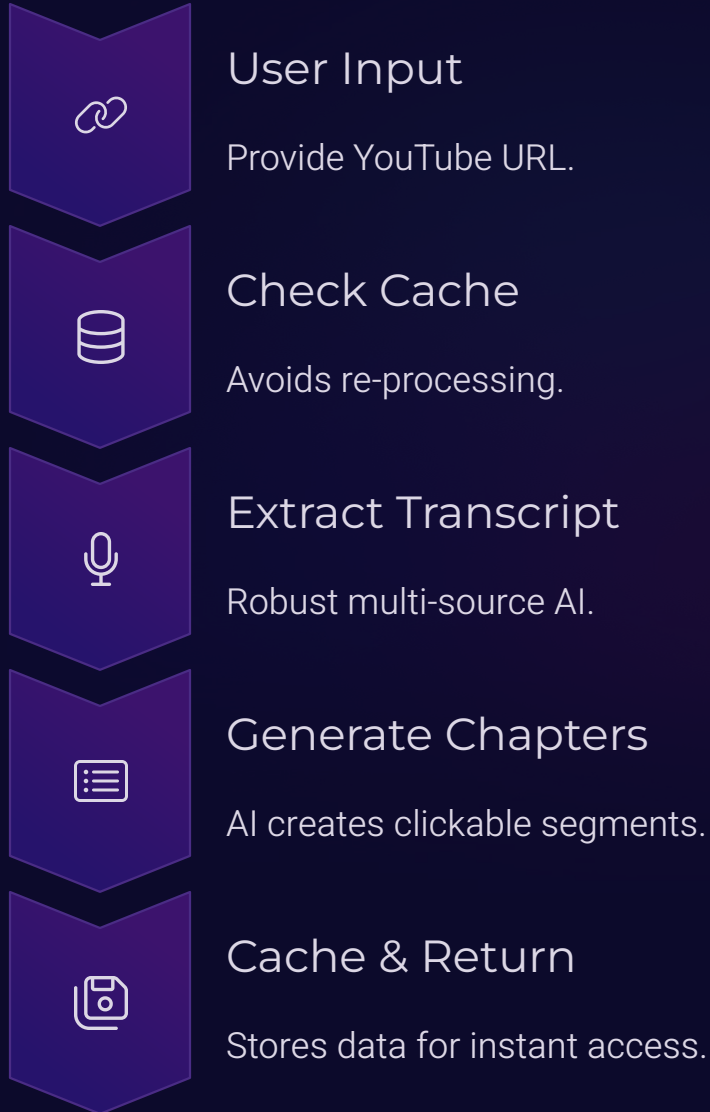
Routes to comprehensive visual analysis.

VizzAI's core innovation intelligently routes user queries. This ensures both speed and accuracy.

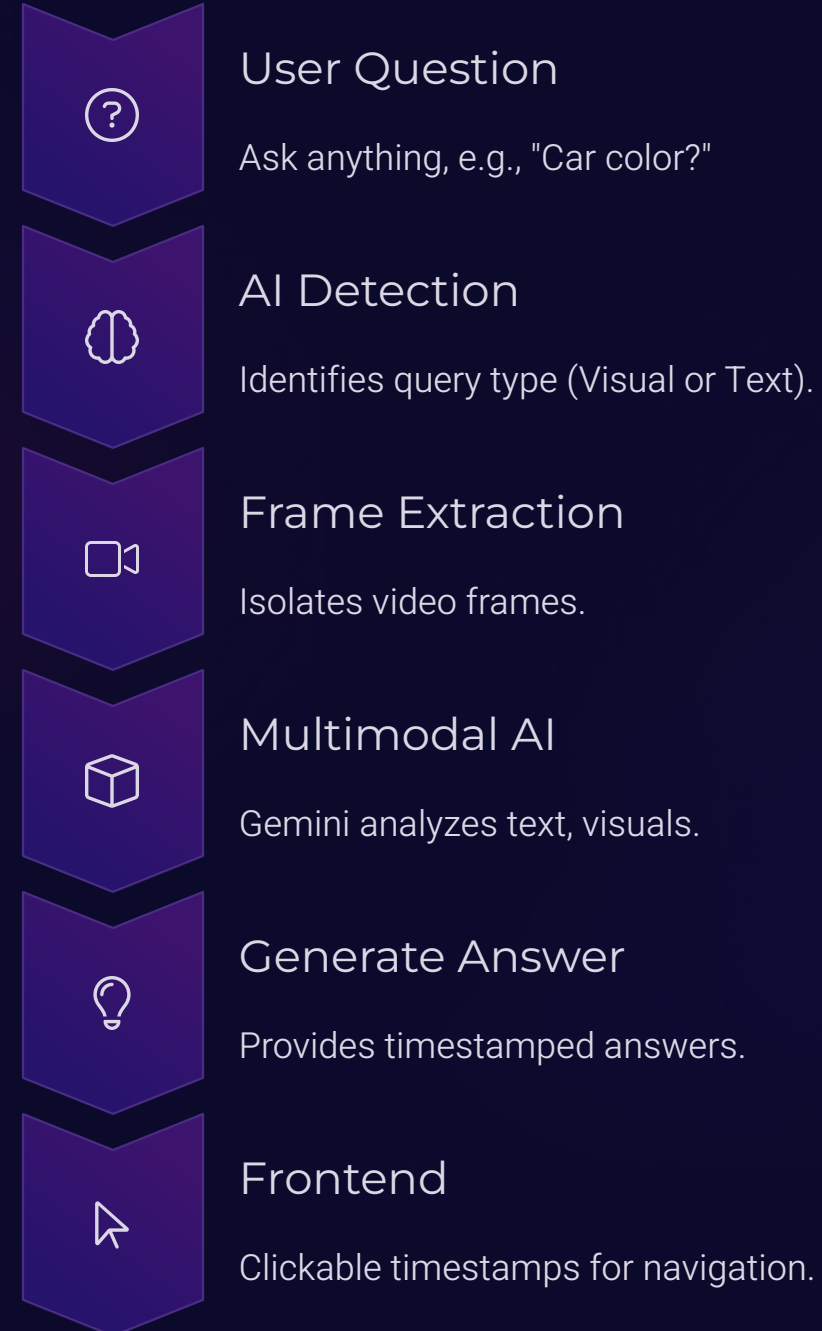
Made with GAMMA

Pipeline

Video Processing Pipeline



Question Analysis Pipeline



Technical Architecture & Robustness

Frontend (React.js)

User Interface & Experience:

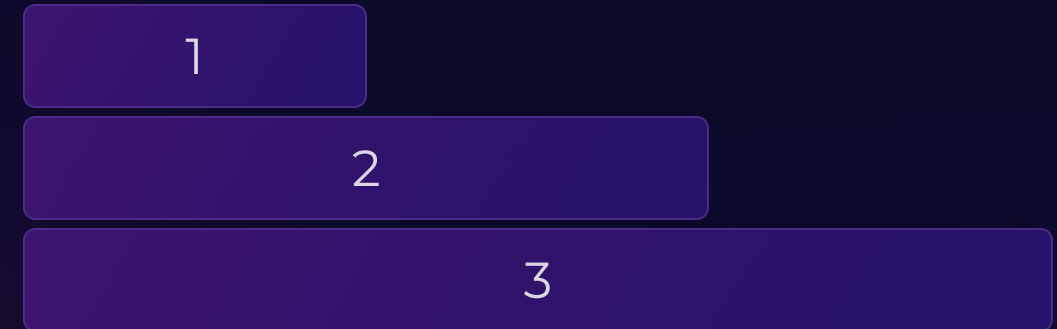
- Component-based UI with state management.
- Custom CSS with glassmorphism effects.
- Real-time notifications for user feedback.
- Responsive design for all devices.

Backend (FastAPI)

API Services & Processing:

- High-performance, asynchronous web framework.
- Google Gemini 2.0 Flash for multimodal AI.
- Smart caching system speeds responses by 80%.
- Eight robust RESTful API endpoints.

3-Layer Fallback System



1 YouTube API

Fastest method.

2 yt-dlp Captions

Reliable secondary option.

3 Whisper AI

Most reliable for complex audio.

Success Metrics & Real-World Impact

Performance Achievements

99%

Transcript Success

80%

Faster Processing

3-5s

Response Time

Real-World Applications



Education



Research



Content Creation



Accessibility

Technical Breakthroughs



Multimodal AI



Smart Caching



99% Reliability



Real-Time UX

Future Roadmap

- Local MP4 file upload
- Video comparison mode
- Mobile app version
- Live streaming analysis
- Batch processing dashboard
- Browser extension

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