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Atlantic
Technological
University

CrumbAI

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Front End Developer

<https://github.com/HamzDevelopment/CrumbAI>

Introduction

In the digital age, **CrumbAI** leverages artificial intelligence to streamline video editing of shorts for creators.

A short is a brief, engaging video designed to quickly capture and retain viewer attention, typically used on platforms like TikTok, YouTube Shorts and Instagram Reels.

This innovative application automates tasks such as segment detection, subtitle generation, cropping and face detection for shorts, while also generating descriptions, thumbnails, and audio using Generative AI.

By reducing manual editing time, CrumbAI enables creators to focus more on creativity and storytelling, simplifying the production of engaging short-form videos.

Features:

Automated Shorts Generation: Utilizing AI to automate segment detection, subtitles, face detection and other editing tasks, CrumbAI significantly cuts down editing time.

Generative Features: Using Generative AI to create descriptions/tags, soundtracks and thumbnails.

Stripe (SaaS): Integrating the Stripe API for monthly payment plans for unlimited access to all features.

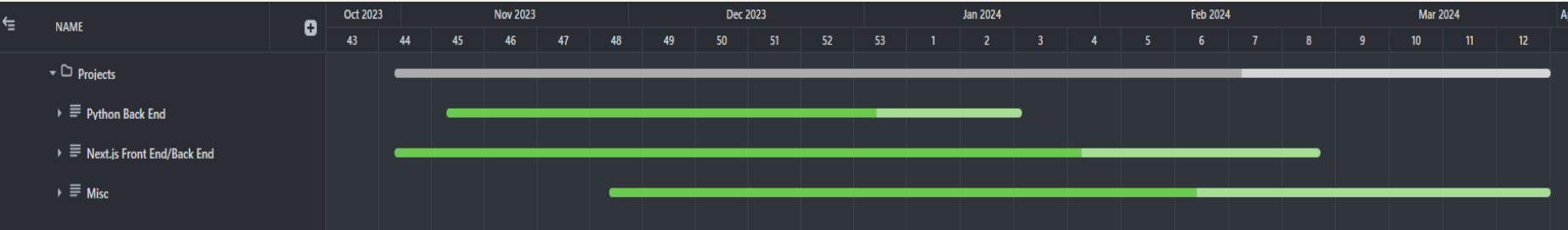
NextAuth: Simple & Effective way to login using social media methods or using normal registration.

Methodologies

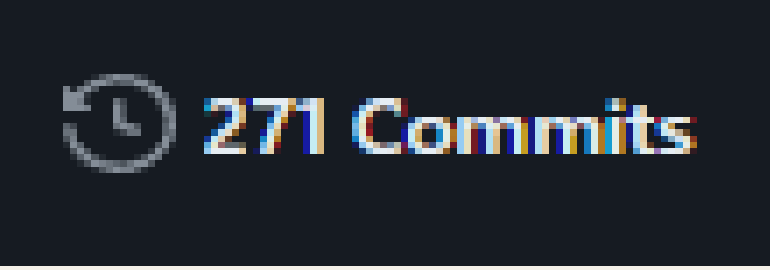
We employed **Agile** methodologies, facilitating flexible and iterative development with sprints, ensuring continuous improvement and alignment with project goals. This approach was supported visually by a detailed Gantt chart & Kanban board illustrating our project's timeline and milestones.

Version control was meticulously managed using **Git**, which provided a robust framework for tracking changes, collaborating on code, and maintaining the project's integrity over time.

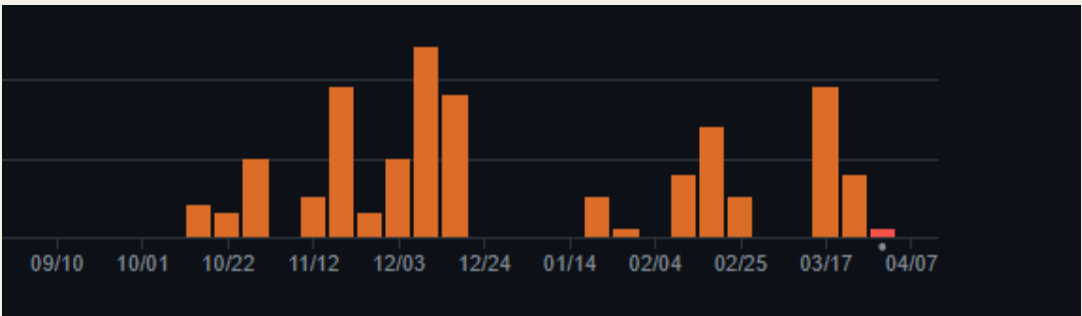
Gantt Chart:



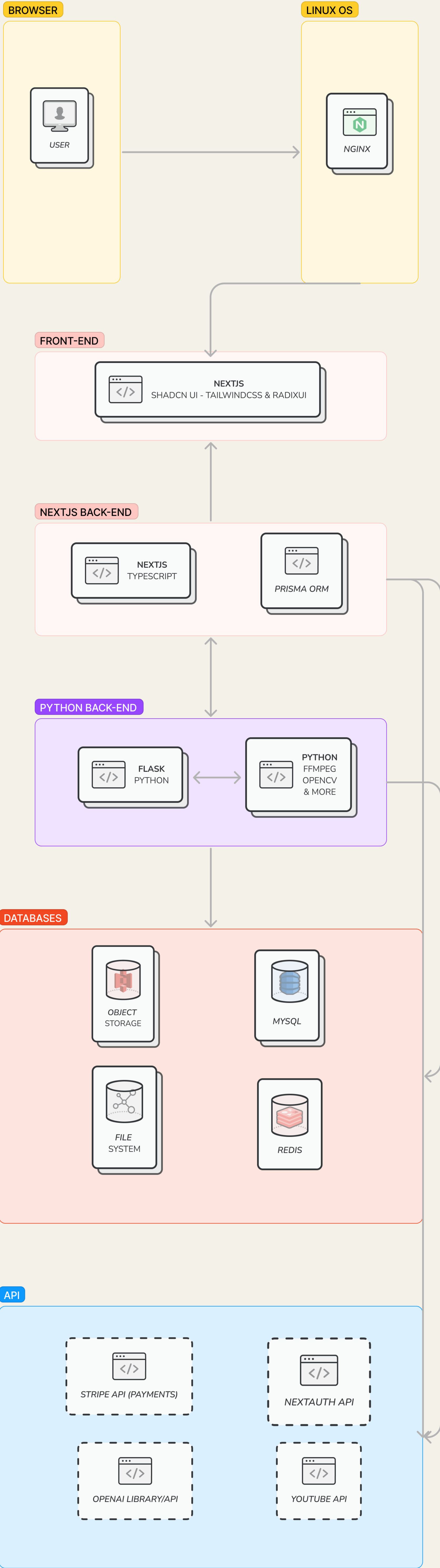
Total Commits:



Commit Insights:



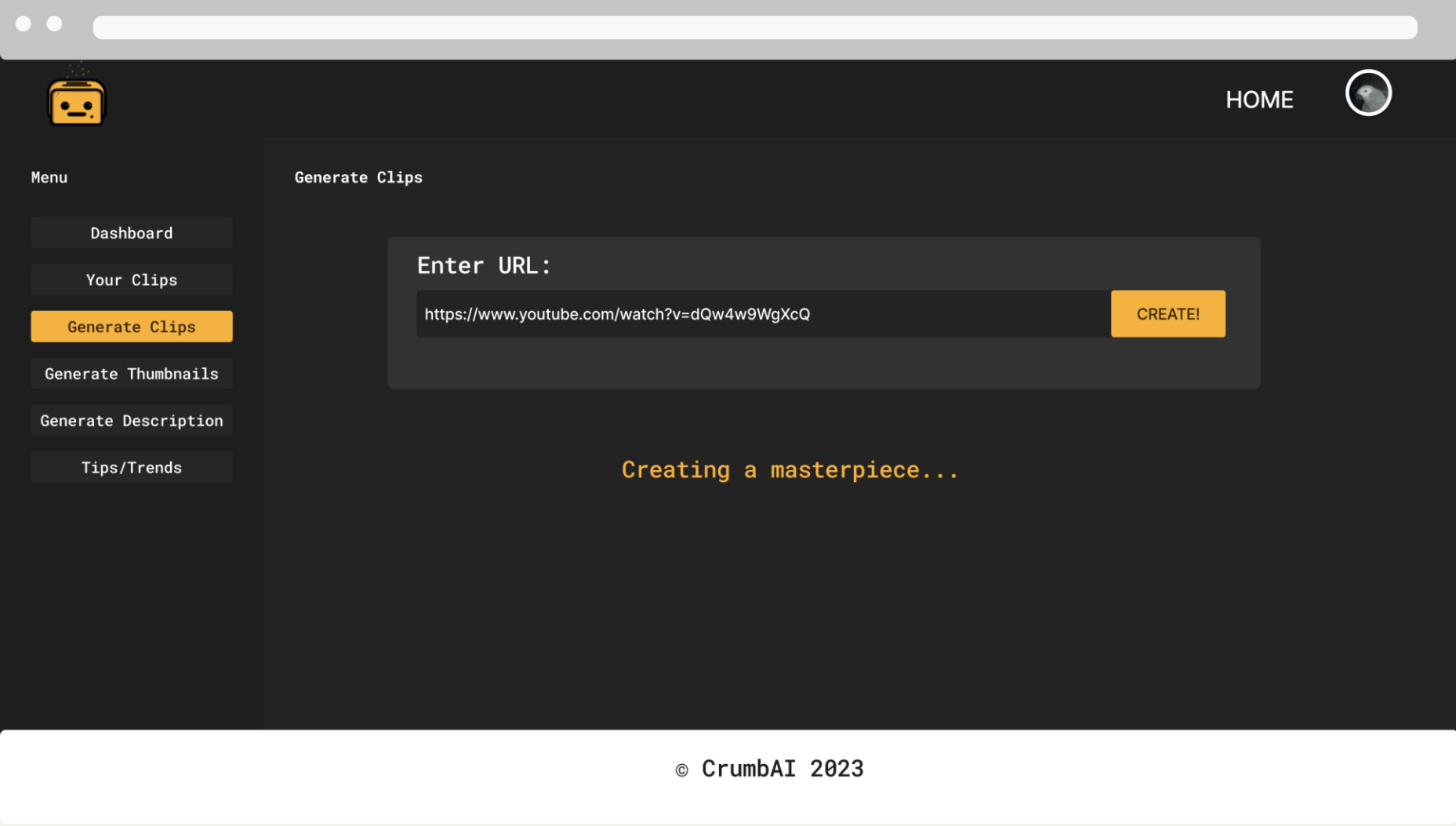
System Design



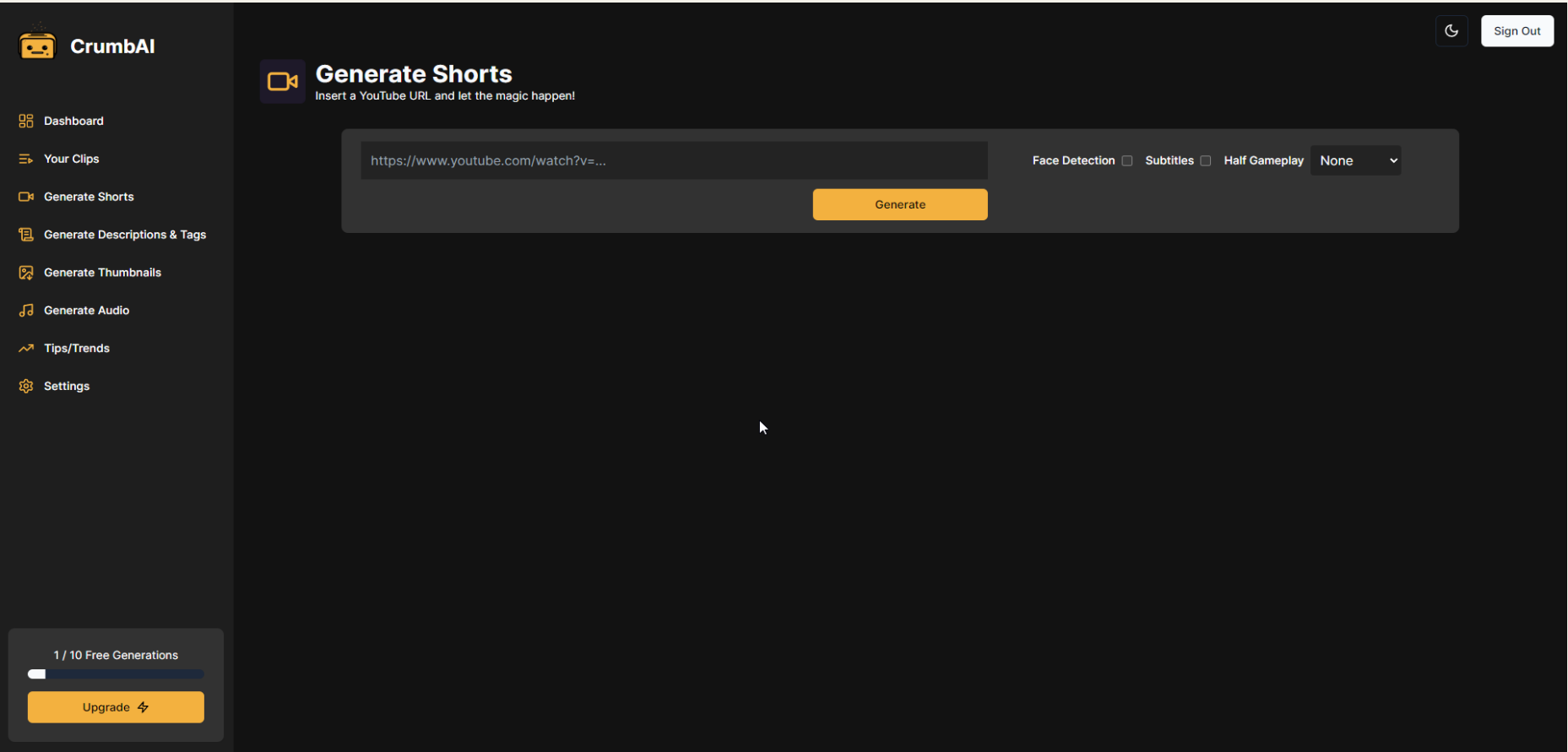
Wireframes

Wireframes played a crucial role in the development of CrumbAI, serving as the blueprint for our user interface design. These preliminary sketches outlined the layout and interaction patterns, ensuring that the final product was both intuitive and effective for users.

Idea:



Outcome:



Results

Shorts Generation:

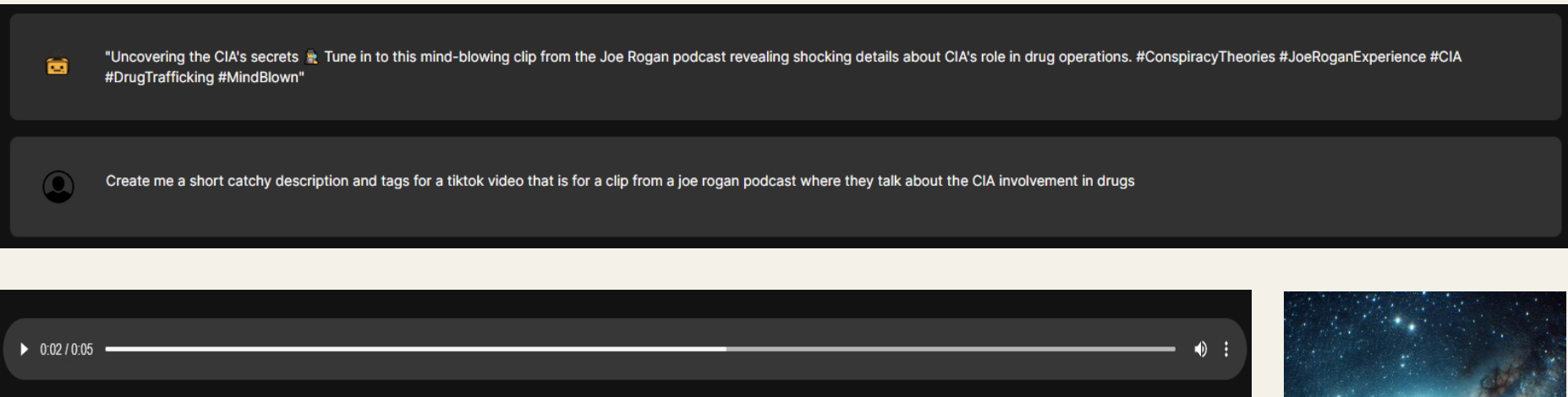
Face Detection, Subtitles
& Half Gameplay



Face Detection, Subtitles



Generative AI:

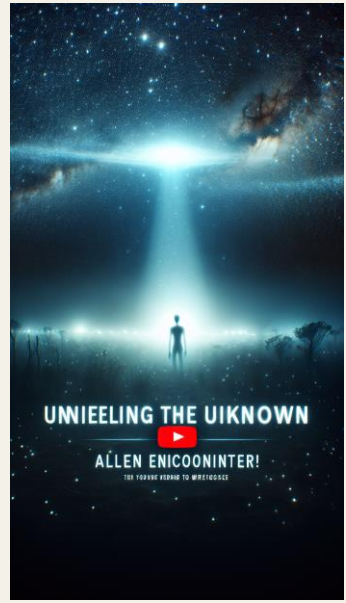


Demo Video:



Demo Login:

URL: <https://crumbai.com>
Email: demo@crumbai.com
Password: Demo123



Conclusion

In conclusion, CrumbAI has successfully demonstrated how AI can transform the video editing landscape, Moving forward, expanding the feature set, and integrating platforms will be key for growth.

We have successfully met our project objectives and personal goals. We are pleased with the results.

Acknowledgements

Daniel – Backend Developer