

“Niche Influencer Finder”

A project report submitted in partial fulfillment of the requirements for the
degree of Bachelor of Engineering in Information Technology

by

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CERTIFICATE

This is to certify that the Project entitled

“Niche Influencer Finder”

is a bonafide work of

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I declare that this written submission represents my ideas in my own words and where others ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea / data / fact / source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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Abstract

In today's digital age, influencer marketing has emerged as a powerful tool for brands to reach and engage their target audiences. This project aims to develop a web application that connects YouTubers with brand owners, enabling seamless collaboration for marketing campaigns. The platform provides YouTubers with an opportunity to showcase their channels, while brands can discover and connect with potential influencers who align with their marketing goals. This system allows YouTubers to register and set up detailed profiles by integrating with the YouTube Data API, automatically fetching information such as channel name, description, subscriber count, and recent videos. Brands can search for YouTubers using various filters, such as niche, engagement rate, or location, and send collaboration proposals directly through the platform.

Additionally, the platform features a comprehensive communication module, allowing brands and YouTubers to chat and negotiate campaign details without leaving the system. It also offers a space where brands can interact and network with each other, enhancing collaboration and business opportunities. The system includes an admin interface for monitoring activities, resolving disputes, and ensuring a secure and efficient environment.

The web application is developed using a robust 3-tier architecture, including a responsive frontend, a secure backend, and a scalable database. Integration with the YouTube Data API ensures up-to-date information for YouTuber profiles, while role-based access control (RBAC) and data encryption maintain user security. This platform aims for global reach, catering to both small brands looking to engage with micro-influencers and large corporations seeking broader campaigns. Revenue generation can be achieved through subscription plans or commission-based models.

The proposed solution aims to simplify the influencer-brand collaboration process, making it easier for brands to find suitable ambassadors and for YouTubers to secure brand deals, ultimately fostering mutually beneficial partnerships in the growing field of influencer marketing.

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Chapter 1

Introduction

1.1 Existing System

Currently, the influencer marketing space lacks a centralized and efficient platform that directly connects YouTubers with brand owners, along with a space for brand-to-brand communication. Existing solutions tend to have fragmented features and do not provide a holistic approach. Below, we analyze the current ecosystem and the need for a new, comprehensive system.

A. Existing Platforms and Tools

I. Social Media Platforms (YouTube, Instagram, TikTok)

- **Usage:** Influencers and brands primarily use social media platforms directly for marketing.
- **Limitations:**
 - Lack of advanced filtering: Brands cannot easily search for specific influencers based on detailed criteria like niche, engagement, or location.
 - No centralized database: Brands need to search and reach out individually, which is time-consuming.
 - Limited communication tools: Platforms like YouTube don't provide direct, integrated communication features for collaboration purposes.

II. Existing Influencer Marketing Platforms (e.g., FameBit, Upfluence, AspireIQ)

- **Usage:** There are dedicated platforms that allow brands to find influencers across various social media channels.
- **Key Features:**
 - Database of influencers
 - Tools for campaign management
 - Analytics for performance tracking
- **Limitations:**
 - Often expensive and inaccessible to smaller brands or new YouTubers.
 - Limited direct communication options between brands and influencers.
 - Lack of tools for brand-to-brand networking and collaboration.
 - Generic database filtering, not always detailed or specific to individual platform needs (e.g., YouTube-focused analytics).

III. Networking and Collaboration Tools (Slack, LinkedIn)

- **Usage:** Brands use these platforms for general networking and communication.
- **Limitations:**
 - Not tailored for influencer marketing.
 - No integrated database of YouTubers or brand ambassadors.
 - No advanced search or filter options for finding specific types of influencers.
 - No tools to extract and display YouTube data analytics for better decision-making.

B. Gaps in the Existing Ecosystem

The existing solutions highlight the following gaps in the influencer marketing ecosystem:

I. Fragmented Platforms:

- A. No centralized system that provides seamless access to YouTube-specific data, allowing brands to find and analyze potential influencers efficiently.
- B. Brands need to navigate multiple tools and platforms to handle different aspects of influencer marketing, from finding influencers to communicating and managing campaigns.

II. Limited Communication Tools:

- A. Existing systems don't offer sufficient direct communication features, making initial collaboration discussions cumbersome.
- B. Brand-to-brand networking features are not available, limiting opportunities for partnerships and co-marketing campaigns.

III. Cost and Accessibility Issues:

- A. Many current platforms are priced out of reach for smaller brands and startups.
- B. Smaller YouTubers often struggle to get visibility on these platforms, as the focus is usually on influencers with larger followings.

IV. Lack of Real-Time Data Integration:

- A. Many platforms don't provide real-time data fetching directly from YouTube, making it difficult to assess an influencer's current engagement metrics and content performance.
- B. Manual data extraction is required, leading to outdated information being used for decision-making.

1.2 Problem Definition

Despite the growing dominance of YouTube in the digital marketing space, brands often face difficulties in discovering and evaluating the right niche content creators for effective influencer collaborations. Existing platforms rely heavily on static metrics, lack real-time insights, and do not offer predictive analytics to forecast content performance. Additionally, there is an absence of an integrated system that offers role-specific dashboards, streamlines the collaboration process, and leverages machine learning for informed decision-making. This project addresses these gaps by developing a data-driven, role-based platform that connects YouTube influencers and brands, enhanced with predictive analytics and real-time data integration to optimize partnership outcomes.

1.3 Literature Review

The rise of YouTube as a significant platform for influencer marketing has prompted extensive research efforts aimed at comprehending its dynamics and creating analytical and engagement systems. Previous studies have examined diverse aspects of YouTube analytics, influencer marketing, and their effects on consumer behavior and brand strategies. Kumar [1] pointed out the increasing influence of user-generated content in shaping brand perceptions. Although this research highlights the necessity of analyzing YouTube content for successful marketing strategies, it does not provide practical tools for connecting influencers with brands. Likewise, Chen [2] explored parasocial interactions in influencer marketing, stressing their importance in audience engagement but failing to address the need for predictive insights into content effectiveness. Research such as that by Basile [3] has investigated value co-creation in luxury fashion communities, illustrating how user-generated content can promote both inclusivity and exclusivity. However, such research studies often target narrow industry applications and do not address more comprehensive and scalable solutions that can be applied across multiple fields. On the technological side, research work by Bansal [4] has shown how data analytics could be applied to influencer marketing using structured datasets to make better collaborations between brands and influencers. Although these methods

adequately extract data to support the decisions, they often come without automation and user-friendly interfaces, which support a variety of users, from influencers and brands to system administrators.

Current platforms also have severe limitations. For instance, the tools that base their metrics primarily on static measurements, such as subscriber counts and video views, do not show the dynamic performance of influencers. Also, as stated by Okonkwo and Namkoisse [6], the creation of authentic relationships between brands and influencers is still challenging because of a lack of clear and streamlined systems. Predictive analytics in YouTube marketing is also less developed. Although Chen [7] decomposed the constituent elements of the most popular marketing videos on YouTube, there exists a lack of integrated predictive models to predict content performance based on previous data. As such, based on these weaknesses, the new system is to be improved by integrating the YouTube Data API with predictive analytics, thereby empowering brands to make better identification decisions on potential collaborating partners. This system differs from the others because it includes role-specific dashboards for both influencers and brands, thus offering customized user experiences. Furthermore, using regression algorithms for video performance forecasting brings about a proactive approach to decision-making. It has solved the drawbacks of static metrics and fragmented tools in favor of automating and friendly design and presented a complete solution for influencer-brand partnerships. The incorporation of an admin panel also ensures the transparency and governance of this ecosystem, over which the existing system lacks and gives a glimpse into a scalable data-driven ecosystem for YouTube influencer marketing.

Chapter 2

Proposed System

2.1 Working Features

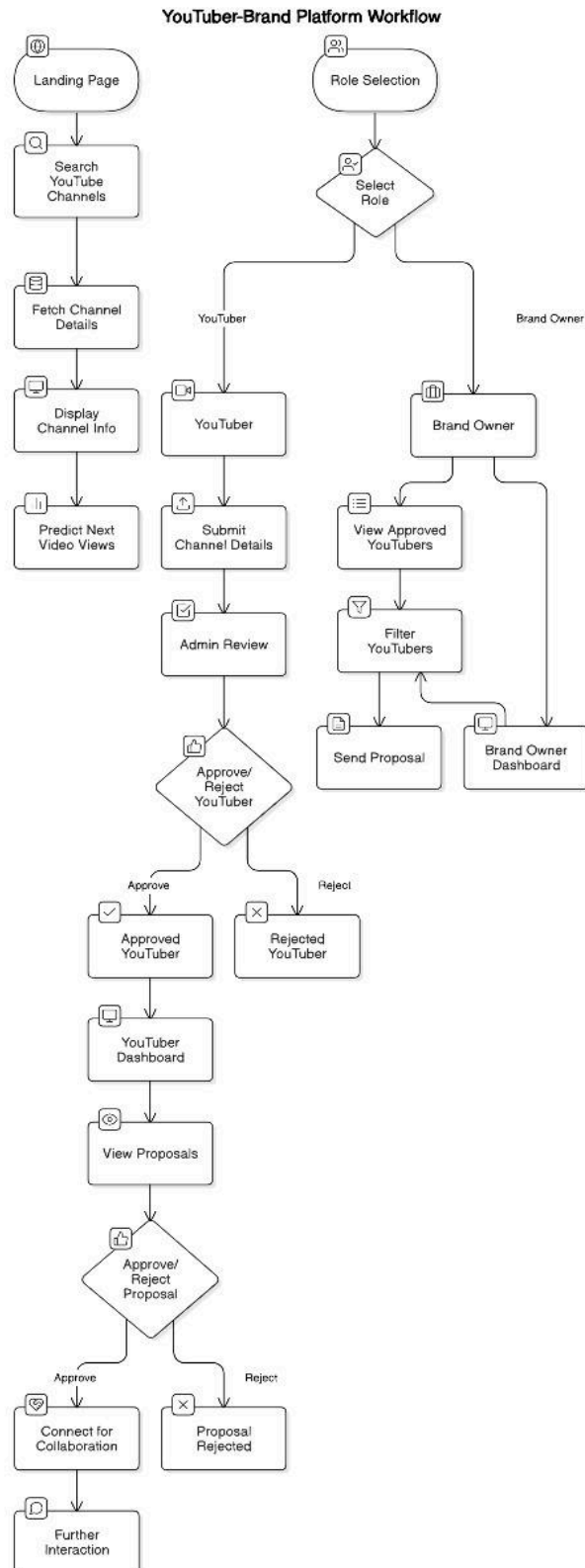


Fig 2.1. Flowchart

A. Introduction

The working features of the proposed influencer marketing platform are designed to provide a seamless and efficient experience for both YouTubers and brand owners. At its core, the platform enables YouTubers to create detailed profiles showcasing their channels, including key metrics like subscriber count, engagement rates, and social media links. This makes it easier for brands to assess the potential reach and relevance of each influencer.

B. Working

1. User Registration and Profile Setup:

- **YouTubers** can register by linking their Google/YouTube accounts, which automatically imports key details from their YouTube channel. They can customize their profile by adding information such as niche, social media links, and descriptions. The system will also fetch real-time data like subscriber count, engagement metrics, and recent videos via the YouTube Data API.
- **Brands** can sign up using business credentials or social media accounts. They create profiles with information about their company, marketing goals, and target audience.

2. Search and Filtering:

- **Brand owners** can use advanced search and filtering tools to find suitable YouTubers. Filters can include niche, subscriber count, geographical location, engagement rates, and more. This helps brands quickly identify the most relevant influencers for their campaigns.
- The platform also allows for direct searching of specific YouTube channels or influencers by name.

3. Real-Time YouTube Data Fetching:

- The system integrates with the YouTube Data API to fetch up-to-date information about each YouTube channel. This includes metrics like subscriber count, video performance, and social media links, ensuring brands have accurate data when assessing potential influencers.

4. Collaboration and Campaign Management:

- **Brands** can post collaboration offers specifying campaign details, requirements, and compensation models. Interested YouTubers can view these offers and apply, allowing brands to review applications and select the most suitable influencers.
- The system facilitates efficient campaign management by storing all collaboration details, proposals, and communication logs in one place.

5. In-App Messaging and Brand Networking:

- To streamline communication, the platform features in-app messaging, enabling brands and YouTubers to discuss collaborations directly. Messaging templates can simplify negotiation, ensuring smooth communication.
- Additionally, brands can network with each other on the platform, share insights, and even partner on co-marketing campaigns. Group chats and forums further enhance collaboration by enabling discussions on industry trends, marketing strategies, and shared experiences.

6. Data Security and Privacy:

- The platform ensures secure authentication, data encryption, and privacy controls. Users can manage their visibility settings, safeguarding sensitive information while maintaining control over their profiles.

7. Scalability and Accessibility:

- Built on robust technologies, the platform is designed to handle a growing number of users and data, ensuring high performance. With a mobile-responsive design, it is accessible on different devices, allowing users to engage with the platform anytime, anywhere.

The system's workflow ensures that both brands and YouTubers can easily find, connect, and collaborate, making influencer marketing more streamlined, efficient, and scalable.

C. Description of Modules

1.User Registration and Authentication:

- Facilitates secure sign-up and login for YouTubers and brand owners. Users can authenticate via Google/YouTube accounts or standard registration, ensuring ease of access while maintaining data security.

2.YouTuber Profile Management:

- Allows YouTubers to create detailed profiles that showcase their channel information, including niche, subscriber count, engagement metrics, and social media links. Profiles are kept up-to-date through integration with the YouTube Data API.

3.Brand Profile and Campaign Setup:

- Enables brands to set up profiles that include company details, marketing goals, and target audience. Brands can also post collaboration offers with specific requirements, campaign goals, and compensation details.

4.Advanced Search and Filtering:

- Provides brands with tools to search for and filter YouTubers based on various criteria such as niche, engagement rates, location, and subscriber count. This helps brands find the most relevant influencers for their campaigns quickly and efficiently.

5.Real-Time YouTube Data Integration:

- Integrates with the YouTube Data API to fetch up-to-date data on YouTuber profiles, including subscriber count, recent video performance, and engagement metrics. This ensures brands have accurate and reliable information.

6.Collaboration and Campaign Management:

- Allows brands to manage collaborations with YouTubers. Brands can review applications, communicate directly, and keep track of all campaign details, from proposals to agreements, in one centralized location.

7.In-App Messaging System:

- Facilitates direct communication between brands and YouTubers, streamlining the negotiation and collaboration process. It also supports structured messaging templates to make discussions more efficient.

8.Brand-to-Brand Networking:

- Enables brands to connect and network with other brands on the platform, fostering partnerships, co-marketing opportunities, and knowledge sharing through group chats and forums.

Chapter 3

Implementation Methods

A. Frontend Implementation

1. Technology Stack

- **Framework:** Next.js (React-based full stack framework)
- **UI Components:** Tailwind CSS, ShadCN for UI primitives
- **State Management:** React Context API and SWR (for data fetching)
- **Authentication:** NextAuth.js
- **Charting Library:** Recharts.js (used in dashboards for data visualization)

2. Pages and Components

- **Landing Page:** Implemented with server-side API calls to YouTube Data API for anonymous users to search for channels and view metrics.
- **Role-Based Dashboards:**
 - **YouTuber Dashboard:** Allows channel registration, proposal handling, and prediction insights.
 - **Brand Owner Dashboard:** Enables influencer search, filtering, and proposal creation.
 - **Admin Panel:** Implements moderation tools using conditional rendering and protected routes.
- **Dynamic UI:** Client-side components dynamically render data fetched from APIs. Filters, charts, and performance analytics are built as reusable components.

3. Routing and Access Control

- Next.js dynamic routing used to render pages based on roles (e.g., /dashboard/youtuber, /dashboard/brand).
- Middleware implemented using NextAuth.js to restrict routes based on user roles.

B. Backend Implementation

1. API Development

- All APIs are built using Next.js API routes (app/api).
- CRUD operations for users, channels, videos, and proposals.
- Endpoints: /api/register-channel, /api/search-creators, /api/propose-collab, etc.
- Secure API requests using JSON Web Tokens (JWT) and OAuth tokens.

2. Business Logic Layer

- **Integration of YouTube Data API:**
 - OAuth 2.0 authentication for user-specific data fetching.
 - GET requests to endpoints such as /channels, /search, /videos for channel metadata and performance metrics.
- **Collaboration workflows:**
 - Logic for proposal creation, notification dispatch, and status updates managed via backend controllers.

- **Proposal tracking:**
 - State transitions (Pending → Accepted/Rejected) handled through dedicated endpoints.

C. Database and ORM

1. Prisma ORM Configuration

- Schema defined using schema.prisma file
- **Models:** User, Channel, Video, Proposal, Campaign
- **Relations:**
 - One-to-many (User → Channel, Channel → Video)
 - Many-to-many (User ↔ Campaign via Proposal)

2. PostgreSQL Database

- Tables indexed on foreign keys (userId, channelId) for fast lookup.
- Use of enums and constraints to maintain data consistency.
- Regular automated backups scheduled using cron jobs in backend deployment environment.

D. Machine Learning and Predictive Analytics

1. Data Preprocessing

- **Features extracted:**
 - Average views, likes, comments, posting frequency, upload time, engagement rate.
- Missing value imputation and normalization handled in backend logic using custom utility scripts.

2. Regression Model

- **Linear Regression:** Implemented in Python and integrated into the backend via a microservice using FastAPI.
- **Model Training:**
 - **Dataset:** Historical data from user channels (video views, likes, comments).
 - Model trained with 5-fold cross-validation.
- **Deployment:**
 - Prediction service is exposed via a REST API endpoint (/api/predict-performance).
 - Predictions shown on the YouTuber dashboard as “Expected Views” of upcoming videos.

3. Advanced Predictive Models (Optional/Advanced Feature)

- Additional models like Random Forest and Gradient Boosting are trained using sklearn.
- These are invoked conditionally based on data availability and campaign scope.

E. Notification System

- **Real-time Notifications:**

- Implemented using WebSockets for collaboration proposals and admin approvals.
- Fallback to email notifications via Nodemailer for offline users.
- **Notification Types:**
 - Proposal Sent, Proposal Accepted, Proposal Rejected, Admin Actions.

F. Deployment and DevOps

1. Hosting and CI/CD

- Frontend and backend deployed on Vercel for fast build times and SSR.
- PostgreSQL hosted on Railway.app or Supabase.
- CI/CD pipeline setup with GitHub Actions for test, build, and deploy on every push.

2. Security and Compliance

- OAuth scopes restricted to read-only access.
- HTTPS enforced across all endpoints.
- Environment variables (API keys, DB credentials) managed through .env files and Vercel secrets.

G. Testing and Evaluation

- **Unit Testing:**
 - Jest and React Testing Library for UI components
 - Prisma mock client for backend function testing
- **Integration Testing:**
 - Postman used for API tests
- **Model Evaluation:**
 - MSE and R2-score used for regression models
- **User Testing:**
 - Feedback gathered from beta users including YouTubers and brand representatives

H. Challenges and Mitigation

- **Handling API Rate Limits:**
 - Implemented exponential backoff for YouTube Data API requests.
- **Ensuring Data Freshness:**
 - Scheduled background jobs to refresh influencer metrics every 24 hours.
- **Role Conflict Resolution:**
 - Users restricted to one role at a time; enforced at registration via form validation.

Chapter 4

Development Tools

1. Software Requirements

1. Frontend Development:

- **Technologies:**
 - Next.js, React.js: For building a dynamic and responsive user interface.
 - TypeScript: For robust, type-safe JavaScript code.
 - Tailwind CSS: For styling and creating a modern, responsive design.
- **Tools:**
 - Visual Studio Code (VS Code): Integrated Development Environment (IDE) for coding.
 - Node Package Manager (NPM) or Yarn: For managing dependencies.

2. Backend Development:

- **Technologies:**
 - Node.js, Express.js: For server-side development.
 - Prisma ORM: For database management and queries.
 - Firebase or Clerk: For authentication and user management.
 - RESTful API Design: For handling communication between frontend and backend.
- **Tools:**
 - Postman: For testing API endpoints.

3. Database:

- **Preferred Database:**
 - MySQL or MongoDB: For storing user profiles, collaboration data, messaging logs, and more.

4. APIs :

- **YouTube Data API:** For fetching real-time data about YouTube channels.

5. Cloud Hosting:

- **Platforms:**
 - AWS (Amazon Web Services), Google Cloud Platform (GCP), or Microsoft Azure: For scalable hosting and server management.
 - Firebase or Netlify: For frontend hosting and seamless deployment.

6. Version Control and Collaboration:

- **Git:** For version control.
- **GitHub or GitLab:** For code repository, version management, and team collaboration.

2. Hardware Requirements

Development Environment:

- **Developer Workstations:**
 - **Processor:** Intel i5 or higher, AMD Ryzen 5 or higher.
 - **RAM:** 16 GB minimum (32 GB recommended for handling development tools and virtual environments).
 - **Storage:** 512 GB SSD or higher for fast data access.

Server Requirements:

- **Application Server:**
 - **Processor:** Quad-Core CPU or higher.
 - **RAM:** 16 GB or more (depending on expected user load).
 - **Storage:** SSD storage, 1 TB or higher.
 - **Bandwidth:** High-speed internet connection for handling multiple concurrent connections.

- **Database Server:**
 - **Processor:** Quad-Core CPU or higher.
 - **RAM:** 32 GB or more for efficient query handling.
 - **Storage:** SSD, 2 TB or higher (expandable based on data growth).
 - **Backup System:** Regular data backup setup to prevent data loss.

Chapter 5

Result and Discussion

5.1 Landing Page

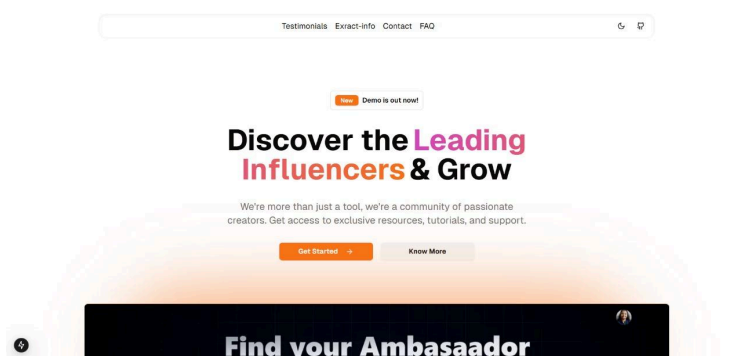


Fig. 5.1. Landing Page

The landing page of the system offers an intuitive interface that clearly conveys the platform's objectives and value proposition. The design emphasizes user navigation ease, featuring a modern and aesthetically pleasing layout. Important functionalities include straightforward menu options for brand owners and YouTubers to register, log in, and discover platform features.

5.2 Admin Dashboard

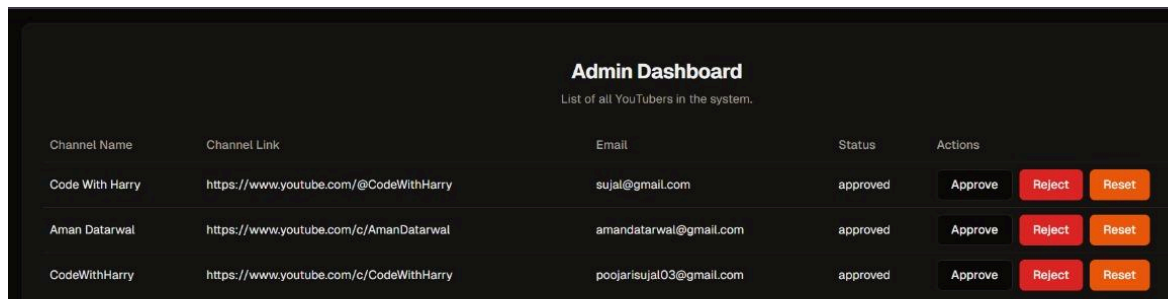


Fig. 5.2. Admin Dashboard

The admin dashboard presents a well-organized interface that aids in the management of platform operations. It grants access to essential metrics such as the total number of registered YouTubers, current campaigns, and trends in platform activity. Administrators can effectively handle user accounts, keep track of platform performance, and assure smooth workflows through real-time updates and alerts. The organized representation of data supports swift decision-making.

5.3 Growth Prediction Analysis

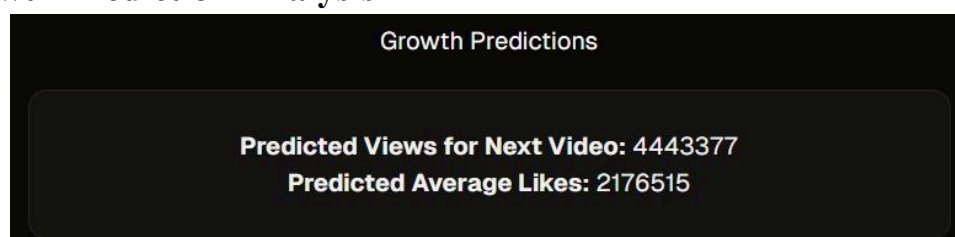


Fig. 5.3. Growth Prediction

The growth prediction feature, illustrated through comprehensive charts and graphs, emphasizes the system's advanced analytical skills. By evaluating historical data and engagement patterns, the system forecasts future growth indicators such as subscriber numbers, video views, and engagement rates. These insights offer valuable foresight for both YouTubers and brand owners to strategically plan their approaches.

5.4 Video Performance Analysis

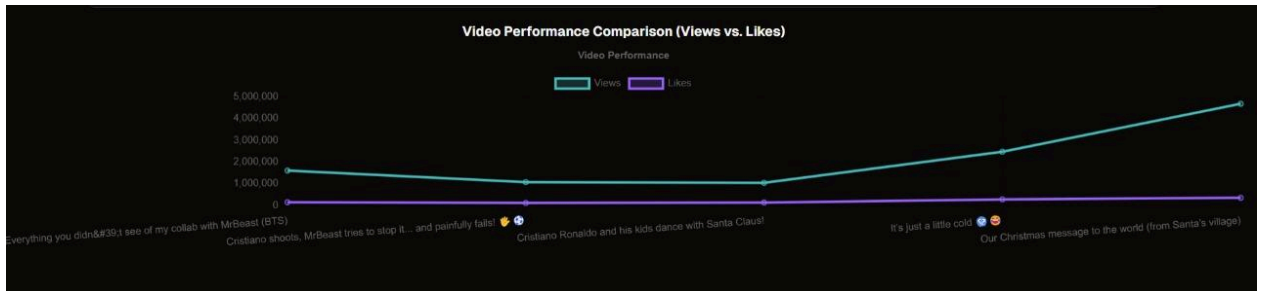


Fig. 5.4. Video Performance Comparison

A dynamic graph that compares video views with likes provides an engaging assessment of video performance. This visual depiction makes it easier to spot trends and irregularities in viewer engagement. For example, an increase in the likes-to-views ratio may indicate greater audience satisfaction or effective content strategies, whereas a decrease might point to areas needing improvement. This feature is essential for benchmarking content performance.

5.5 Insights from the Last Few Videos

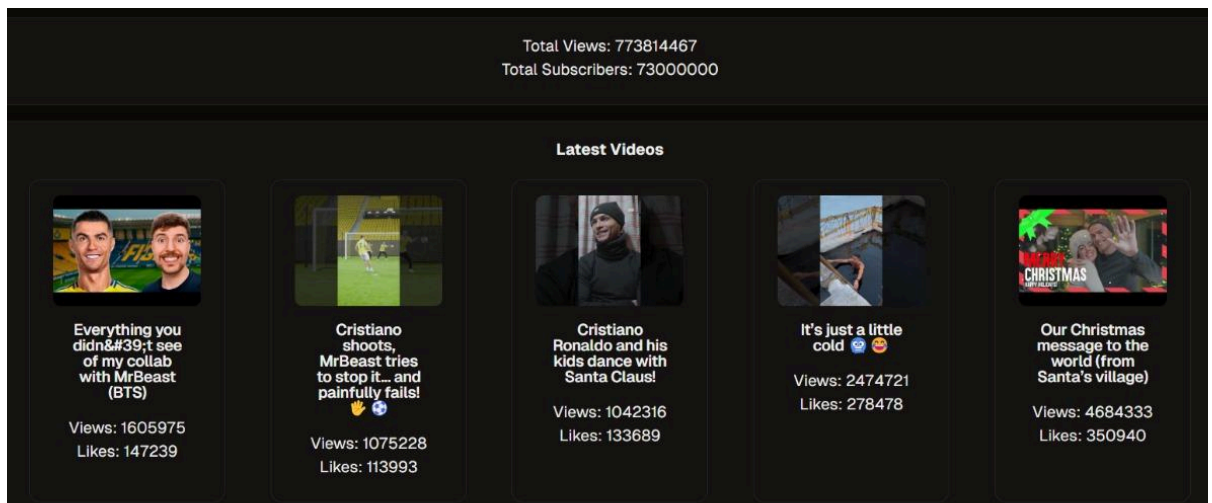


Fig. 5.5. Insights from the Last Five Videos

The system's ability to summarize insights from the last five videos is a significant feature. These insights include information on average views, likes, comments, and audience demographics. By presenting this data concisely, the system helps YouTubers enhance their content strategies and aids brand owners in recognizing creators who consistently produce high-quality content.

Chapter 6

Future Scope

The influencer marketing platform can be further enhanced and expanded in several ways to meet evolving market demands. Future developments could include integrating additional social media platforms, such as Instagram, TikTok, and Twitter, allowing brands to connect with influencers across multiple channels. Advanced analytics and reporting tools can be added to provide brands with insights into campaign performance, influencer engagement, and audience demographics, helping them make data-driven decisions.

Another potential improvement is the implementation of AI-based recommendation engines that suggest suitable YouTubers to brands based on past campaign success, content type, and engagement metrics. The platform can also introduce a rating and review system where brands and influencers can leave feedback, fostering trust and transparency. Additionally, expanding the platform's reach to include influencer agencies and management companies would open up more collaboration opportunities, further boosting the ecosystem.

As the platform grows, scaling the infrastructure to support more users, enhancing data security, and complying with international data protection regulations will be essential. Regular updates and feature enhancements will ensure that the platform remains competitive and valuable for users worldwide, driving continuous growth in the influencer marketing sector.

Chapter 7

Plan of Work

Phase 1: Literature Survey and Requirements Gathering (2 Weeks)

1. Tasks:

- **Literature Survey:** Research existing platforms (e.g., Internshala, Upfluence) to understand their features, functionalities, and user interface designs. Analyze market trends, competitors, and the latest tools in influencer marketing.
- **Requirements Gathering:** Identify and document detailed requirements from stakeholders.
- Define the key features, user roles, and system specifications based on findings from the literature survey.

2. Deliverables:

- Literature Survey Report
- Requirements Specification Document
- Use Case Diagrams and User Stories

Phase 2: System Design (2 Weeks)

1. Tasks:

- Design system architecture (3-tier structure: Frontend, Backend, Database).
- Create wireframes and UI/UX mockups for user interfaces.
- Define database schema and relationships.
- Design API integration plans (YouTube Data API).

2. Deliverables:

- System Architecture Diagram
- Wireframes and Mockups
- Database Schema Design
- API Integration Plan

Phase 3: Frontend Development (3 Weeks)

1. Tasks:

- Develop user interfaces for YouTubers, Brand Owners, and Admins.
- Implement responsive design for mobile and desktop.
- Create components for registration, profile management, campaign posting, search, and messaging.

2. Technologies:

- HTML, CSS, JavaScript, React or Angular

3. Deliverables:

- Functional and responsive frontend components

Phase 4: Backend Development & Database Setup (3 Weeks)

1. Tasks:

- Develop user authentication and authorization modules.
- Implement core business logic for managing profiles, campaigns, and communications.
- Integrate with YouTube Data API for real-time data fetching.
- Set up the database and implement schema design.

2. Technologies:

- Node.js, Express, Python (Django/Flask), or PHP (Laravel)
- SQL (MySQL, PostgreSQL) or NoSQL (MongoDB)

3. Deliverables:

- Backend modules for authentication, data processing, and API integration
- Functional and connected database with data integrity

Phase 5: Integration and Testing (2 Weeks)

1. Tasks:

- Integrate frontend, backend, and database components.
- Configure and integrate YouTube Data API for fetching channel details.
- Conduct unit, integration, and system testing for all components.
- Test for scalability, security, and performance issues.

2. Deliverables:

- Integrated and functional platform
- Test Cases and Test Reports

Phase 6: Final Testing, Deployment, and Launch (2 Weeks)

1. Tasks:

- Perform final checks and ensure the system is operational.
- Set up hosting environment on a cloud platform (AWS, Azure, Google Cloud).
- Deploy the platform using containerization (e.g., Docker).
- Launch the platform for beta testing, gather feedback, and make final adjustments.

2. Deliverables:

- Deployed and live platform ready for users
- Beta Testing Feedback Report
- Documentation for setup and maintenance

Phase 7: Post-Launch Support and Maintenance (Ongoing)

1. Tasks:

- Monitor system performance and fix any issues that arise.
- Provide user support and gather feedback for improvements.
- Implement regular updates for new features and enhancements.

2. Deliverables:

- Regular system updates and feature enhancements
- Support documentation

Chapter 8

Conclusion

This project presents a comprehensive, scalable system to facilitate collaboration between YouTube content creators and branding representatives using predictive analytics, real-time data integration, and intuitive role-based dashboards. The platform ensures that stakeholders make an informed decision through actionable insights regarding video performance, audience engagement, and content growth trends. For YouTube influencers, the system provides personalized analytics, channel visibility, and access requests for brand collaborations. This way, brands can filter influencers successfully and predict campaign outcomes and ROI using predictive models. An admin module further allows for governance and transparency on the platform. Through regression-based forecasting of engagement metrics via an integrated user interface, the system also alleviates major concerns in influencer marketing platforms. With its modular design and data-driven backbone, the architecture can be easily improved to include AI-powered recommendations or engage in further analytics. To summarize, the proposed solution fills the gaps in the influencer-brand ecosystem on YouTube, paving the way for efficient, transparent, and data-focused interactions that can keep up with the high-paced evolution of digital marketing. developments, the system lays a solid groundwork for empowering stakeholders to make informed, data-driven choices, promoting growth in the fast-evolving landscape of digital marketing.

Chapter 9

Publications

- 1) Ananya Shetty, Siddhi Suryavanshi, Sujal Poojari, Shaila Pawar, “A Unified Platform for Influencer-Brand Collaboration via YouTube Analytics”, International Conference on Next-Gen Computing, Communication, Networks and Systems APRIL 18-19, 2025 in Jaipur, India
- 2) Ananya Shetty, Siddhi Suryavanshi, Sujal Poojari, Shaila Pawar, “Connecting Brands and Influencers: A Unified Platform for Collaboration and YouTube Channel Analytics”, International Conference on Emerging Trends in Engineering, Science and Technology 2025 APRIL 11-12, 2025 in Nashik, India

9.1 Publication Certificates



Fig. 9.1.1. Ananya's Publication Certificate



Fig. 9.1.2. Sujal's Publication Certificate



Fig. 9.1.3. Siddhi's Publication Certificate



Fig. 9.1.4. Guide's Publication Certificates

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Connecting Brands and Influencers: A Unified Platform for Collaboration and YouTube Channel Analytics

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Abstract—The rise of influencer marketing has significantly transformed advertising methods, highlighting the importance of YouTube content creators in promoting brands. In today's marketing world, influencer marketing is shaping the way brands go about advertising through the help of a stream on online brand exposure and how YouTube content creators become crucial in promoting brands. This research introduces a systematic success in linking niche YouTube creators to brand collaborations while creating a rich user interface from an informational system. It is meant to enable an ordinary user to discover channels on YouTube and then to extract several key metrics and later anticipate the performance of future video to come with regression algorithms interacting with channels. For those under a different profile access, it enables YouTube content creators to display information about their channels to prospected brands with whom they might establish liaisons as well as brands to filter content creators by their number of subscribers or geographic location. The approval and follow-up of collaborations while setting up talks will be guaranteed from the panel. The frontend interactive experience is being put up by Next.js along with Prisma ORM's solid backend management. Real-time updates on the status of YouTube channels are obtained here using YouTube Data API to supplement regression analysis techniques enhancing prediction capabilities toward video performance and aiding the brand in making informed decisions on collaborations

Keywords—Youtube influencer marketing, Regression algorithm, Next.js, Prisma ORM, Youtube data API, brand collaboration

I. INTRODUCTION

In the dynamic nature of digital media, YouTube is now a preferred platform for publishing content, reaching audiences, and executing marketing practices. This high growth in YouTube content creators and brands has opened up an even more complex playground where finding an influencer fit for the correct brand is simultaneously an opportunity and a challenge. The rapid increase in content creators and brands utilizing YouTube has resulted in a complex environment where the challenge of aligning the right influencer with the appropriate brand presents both prospects and difficulties. This project aims to tackle this issue by designing a

comprehensive system that fosters smooth interactions between YouTubers, brand representatives, and general users, while offering insights, forecasts, and collaboration tools. The system is organized around three primary components: a landing page for general users, specialized dashboards for influencers and brand owners, and an admin panel for effective oversight of the system. This landing page acts as the access point for the users to look through the different channels on YouTube through the YouTube Data API. It provides the details of the channels, such as subscriber count, total views, geographical location, and performance metrics for the last five videos. The system also has a regression algorithm that predicts the viewership of the next video to provide insights into potential audience reach to increase user engagement. For YouTube influencers, the system offers a customized dashboard in which they can register their channels, specify brand preferences, and manage collaboration requests. The tools are provided to brand owners to filter influencers according to specific criteria, such as subscriber count, geographical area, or video performance, and propose collaborations through detailed proposal documents. This fluid interaction is facilitated by a notification system that ensures prompt communication between influencers and brands. An admin panel manages these operations by offering features to approve or deny influencer registrations, track collaborations, and maintain the system's integrity. The backend uses Prisma ORM to ensure reliable data management and both scalability and reliability. Apart from streamlining the cooperation process, the solution uses predictive analytics for better decision-making for influencers and companies. The proposed approach solves inefficiencies found in traditional cooperation models and gives stakeholders actionable data with the automation of critical elements of influencer marketing and use of real-time analytics. It is a great study that probes the architecture and functionalities and gets down to its implementation details that offer a fully integrated framework for brand-influencer engagement on YouTube. This trailblazing can really change how brands interact with influencers by exploiting technology to drive efficiency, bringing more data at the center in the influencer marketing ecosystem.

II. RELATED WORK

The rise of YouTube as a significant platform for influencer marketing has prompted extensive research efforts aimed at comprehending its dynamics and creating analytical and engagement systems. Previous studies have examined diverse aspects of YouTube analytics, influencer marketing, and their effects on consumer behavior and brand strategies. Kumar [1] pointed out the increasing influence of user-generated content in shaping brand perceptions. Although this research highlights the necessity of analyzing YouTube content for successful marketing strategies, it does not provide practical tools for connecting influencers with brands. Likewise, Chen [2] explored parasocial interactions in influencer marketing, stressing their importance in audience engagement but failing to address the need for predictive insights into content effectiveness. Research such as that by Basile [3] has investigated value co-creation in luxury fashion communities, illustrating how user-generated content can promote both inclusivity and exclusivity. However, such research studies often target narrow industry applications and do not address more comprehensive and scalable solutions that can be applied across multiple fields. On the technological side, research work by Bansal [4] has shown how data analytics could be applied to influencer marketing using structured datasets to make better collaborations between brands and influencers. Although these methods adequately extract data to support the decisions, they often come without automation and user-friendly interfaces, which support a variety of users, from influencers and brands to system administrators.

Current platforms also have severe limitations. For instance, the tools that base their metrics primarily on static measurements, such as subscriber counts and video views, do not show the dynamic performance of influencers. Also, as stated by Okonkwo and Namkoisse [6], the creation of authentic relationships between brands and influencers is still challenging because of a lack of clear and streamlined systems. Predictive analytics in YouTube marketing is also less developed. Although Chen [7] decomposed the constituent elements of the most popular marketing videos on YouTube, there exists a lack of integrated predictive models to predict content performance based on previous data. As such, based on these weaknesses, the new system is to be improved by integrating the YouTube Data API with predictive analytics, thereby empowering brands to make better identification decisions on potential collaborating partners. This system differs from the others because it includes role-specific dashboards for both influencers and brands, thus offering customized user experiences. Furthermore, using regression algorithms for video performance forecasting brings about a proactive approach to decision-making. It has solved the drawbacks of static metrics and fragmented tools in favor of automating and friendly design and presented a complete solution for influencer-brand partnerships. The incorporation of an admin panel also ensures the transparency and governance of this ecosystem, over which the existing system lacks and gives a glimpse

into a scalable data-driven ecosystem for YouTube influencer marketing.

III. METHODOLOGY

A. System Architecture

This structural design of the proposed system links YouTubers and brand owners using a scalable and user-friendly interface. It has three tiers: front-end interface, back-end services, and a database. All interfaces are connected using APIs. The frontend was made using Next.js and comprises user-friendly dashboards, a landing page where searches for the YouTube Data API can be made, functions unique to user roles, and personalized dashboards for managing proposals and monitoring engagement metrics. The backend, built using Next.js, handles API integrations, holds business logic, performs predictive analytics with linear regression, and maintains data storage through Prisma ORM. It includes an admin panel for tracking user registrations, approving profiles, and validating collaboration proposals. The PostgreSQL database tracks records of users, YouTubers, brand owners, and proposals to enable efficient queries and advanced analytics for Built with Next.js, the backend provides business logic, handles API connections, employs Prisma ORM for data organization, and uses linear regression for predictive analytics. User, YouTuber, and brand records.

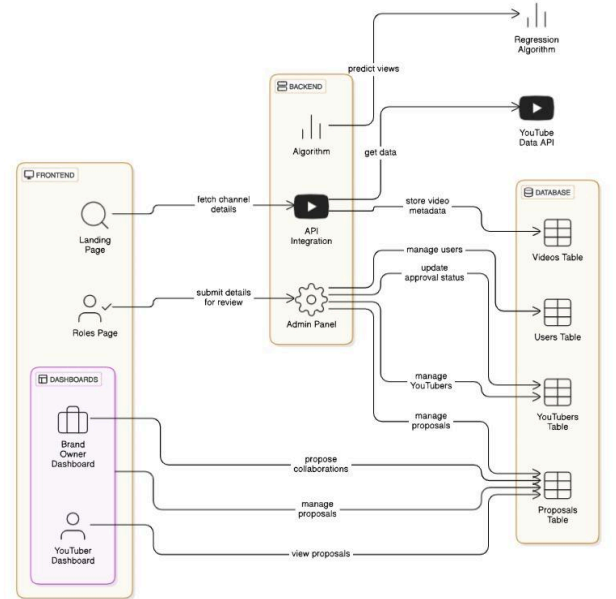


Fig. 1. System Architecture

B. Functional Modules

The system includes a number of functional modules designed to bring specific features and facilitate workflow for YouTubers and brand owners. These functional modules are integrating with each other to provide a unified, effective platform for smooth data exchange, sophisticated filtering, and practical insights.

1. User Role Selection Module: Right at the heart of the system is what is called the vector store, forming the repository of knowledge. Right at the heart of this system is the vector store that forms a knowledge repository. In this module, users get to

specify which roles they can have during sign up, selecting to be YouTubers or brand owners.

Role selection is crucial in the sense that it customizes features on this platform for a particular user. The YouTuber gets an opportunity to explore modules for registering a channel, following their performance and handling collaborations. On the other hand, brand owners can use the platform to find YouTubers, filter channels based on criteria and propose collaboration. The module ensures a streamlined user experience by aligning functionalities with user objectives.

2. YouTuber Channel Management Module: This module enables YouTubers to oversee their channel information. It supports the connection of their YouTube channel to the platform via secure API integration, gathers detailed metrics like subscriber counts, video views, and niche categories, and allows profile updates to improve visibility to brand owners. The system provides performance overviews for the latest videos, gives predictive insights about video engagement using linear regression models, and has tools for accepting or declining collaboration proposals. This module is very important for equipping YouTubers with control over their visibility and data.

3. Brand Owner Search and Filter Module: The brand owners use this module to find YouTubers who will achieve their campaign goals. This module includes advanced filtering capabilities, which enable users to search by niche, location, subscriber count, engagement rate, and video performance metrics. It provides a detailed view of potential collaborators while also offering predictive analytics to help brand owners spot promising YouTubers based on their historical performance.

4. Collaboration Proposal Management Module: Proposals for cooperation are the most essential function showcased via the application. This module will help to automate the proposal-creation, proposal-management, and tracking process between the brand owners and YouTubers. The brand owners will be able to compose proposals, include campaign specifics, and send these proposals to selected YouTubers. YouTubers will then view, evaluate, and respond to such proposals through their dashboards. This is going to track all proposals as either pending, accepted, or declined. It would notify both parties on the change in status of each proposal. The module also enables efficient professional interactions.

5. Dashboard Module: Dashboards provide the user role with customized views of what the platform's features are. The YouTuber dashboard is focused on the analytics of how their channel is doing, collaboration proposals, and predictions for videos about to be uploaded. The brand owner dashboard focuses more on campaign management, search and filter for YouTubers, and tracking of proposals. Admin dashboard allows administrators to track user sign-ups, watch platform activity, and validate proposals.

6. Admin Management Module: The admin module is crucial for maintaining the platform's integrity and ensuring smooth operations. Administrators have the capability to review user

registrations, verify YouTuber profiles, and supervise collaboration proposals to ensure they align with platform policies. Additionally, admins can amend platform guidelines, manage user access, and resolve user disputes. The module also offers analytical reports on platform usage, allowing admins to detect trends and identify areas for improvement.

7. Analytics and Reporting Module: This module gives users insights based on analyses from different sources. Predictive analytics help YouTubers and brand owners predict the performance trend and engagement by an audience. It will summarize video performance, campaign results, and YouTuber-brand pairings with actionable recommendations. Users may download these reports for data-informed purposes outside the tool. The analytics module is one of the most important parts of the system since it transforms raw data into something of value.

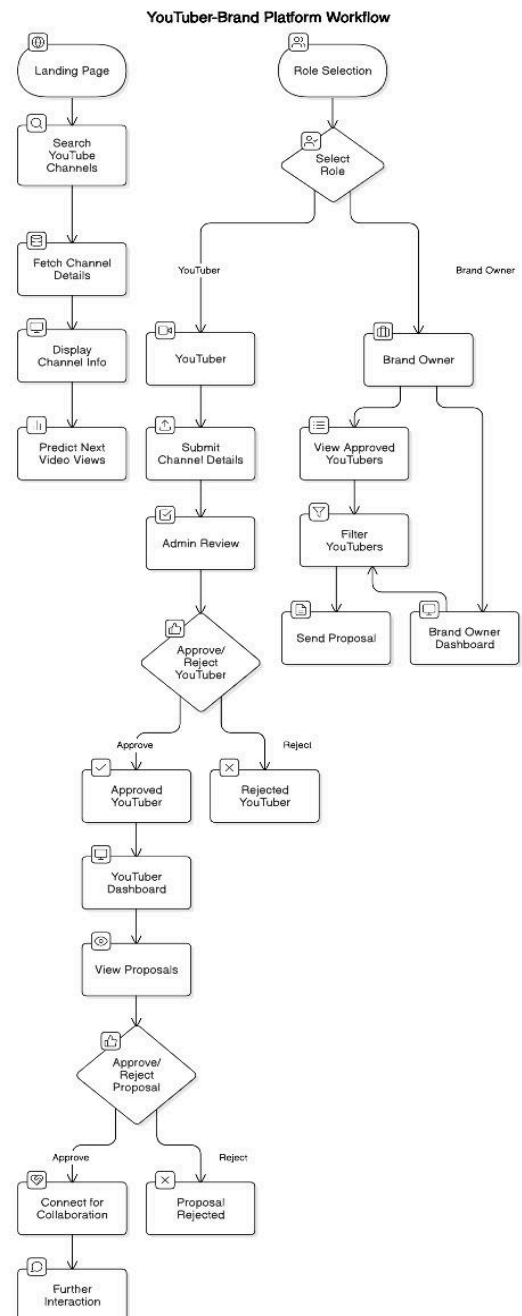


Fig. 2. Workflow of the system

C. Data Collection And Processing

The core of the system is the module for collecting and processing data, which ensures the precise and effective acquisition of information from YouTubers and their associated channels. The system fetches real-time information from the YouTube Data API, including channel details like name, description, category, and location; video specifics like titles, descriptions, viewer counts, upload dates, and engagement statistics like likes, comments, and shares; and audience demographics, including age, gender, and location, if available. Further, the registration process collects user-generated information that captures YouTubers' contact information, niches of content, and preferences about collaborating. Additionally, it collects the campaign goals, target audiences, and budget requirements of brand owners. Other tools, such as Firecrawl, are also employed to collect publicly available information such as social media profiles, LinkedIn accounts, and previous partnership details. The data collected undergoes a full preprocessing pipeline once it has been gathered. It includes a cleaning process about removing duplicates while ensuring that anything missing is tackled to make things uniform. Classification of data then occurs with help from Natural Language Processing, making it possible for YouTubers to find their niches through their channels' descriptions along with video names. Essential features, including average views, engagement rates, and growth trajectories, are gathered to facilitate analytics and recommendation capabilities. All the processed data is subsequently stored in a relational database that is optimized for efficient retrieval and complex querying, maintaining relationships among users, videos, and campaigns.

D. Predictive Analytics

The predictive analytics module utilizes machine learning methods to deliver valuable insights to both YouTubers and brands, assisting in their decision-making and enhancing campaign strategies. For YouTubers, the platform provides analysis of channel expansion and recommends effective content approaches. For brands, it predicts an outcome of campaigns and measures return on investment from engagements. The module uses linear regression methods to predict growth using historical data such as past view counts, subscriber count increases, and engagement metrics. Audience retention analysis shows watch-time trends and suggests optimal video lengths and formats to increase viewer engagement.

Engagement predictions are performed using machine learning algorithms like Random Forests and Gradient Boosting, which predict metrics such as likes, shares, and comments for upcoming videos. The system also includes a recommendation engine: for YouTubers, it suggests trending topics and best posting times according to viewer interaction patterns, while for brand owners, it finds YouTubers with the highest potential ROI for specific campaign goals. Machine learning models are trained on anonymized datasets and tested with cross-validation methods to ensure their

precision. Continuous learning is applied to refresh models regularly with new data, improving prediction accuracy over time.

E. Database Design

YouTube-Brand Connection Platform

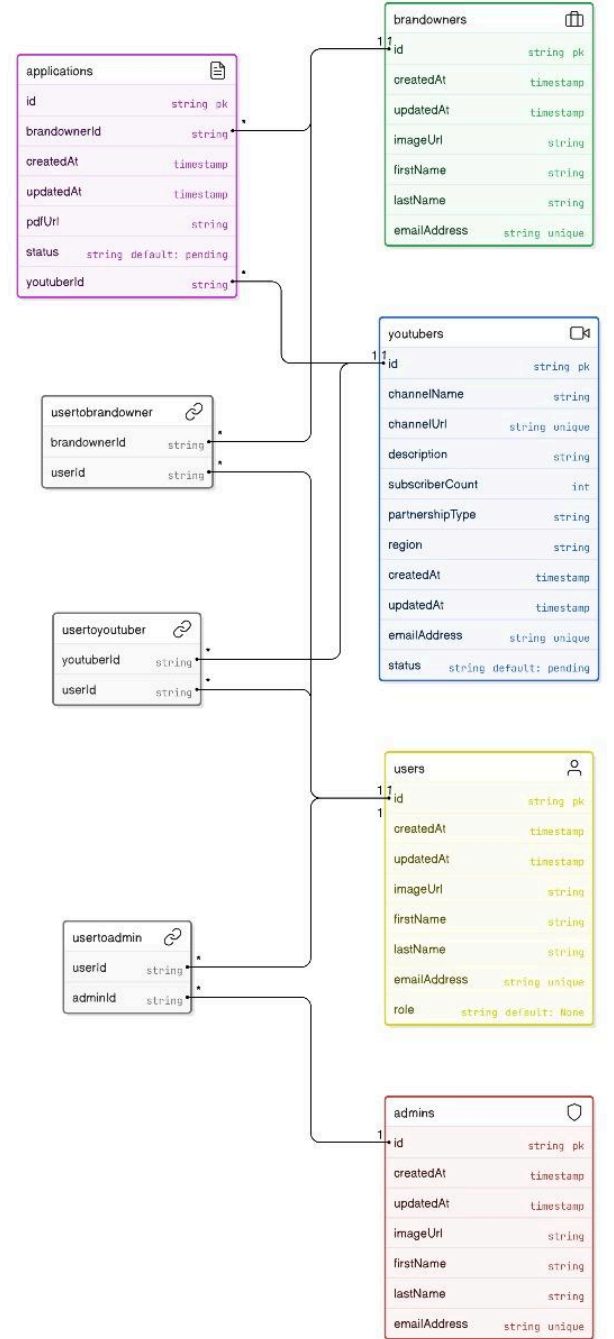


Fig. 3.Database Design

The system utilizes a relational database to provide structured and efficient data storage and management, enabling smooth integration across all modules. The database consists of several important components. The Users table holds information about registered users, including their unique IDs, names, emails, roles (either YouTuber or brand owner), and registration dates. The Channels table records details about YouTuber channels, such as unique channel IDs, linked user IDs,

niche categories, subscriber counts, average views, and engagement rates. Video metadata is kept in the Videos table, which contains video titles, view counts, upload dates, and engagement statistics.

The Campaigns table monitors brand collaborations, detailing campaign IDs, linked brand owners, participating channels, budgets, start and end dates, and statuses (active, completed, or pending). The Proposals table captures collaboration proposals initiated by YouTubers and brand owners, including proposal IDs, brand owner IDs, channel IDs, proposal dates, and their statuses (pending, accepted, or rejected). Relationships between these tables are established, such as one-to-many links between users and channels, as well as between channels and videos, and many-to-many connections between campaigns and users or channels enabled through proposals. To maintain scalability and performance, indexing is applied to frequently queried fields, including user IDs and channel IDs, while data partitioning is used for larger tables like Videos, organized by date ranges. Regular backups and a strong disaster recovery strategy ensure the safeguarding of data integrity and accessibility.

IV. RESULT AND DISCUSSION

The developed platform has effectively showcased its ability to enhance the collaboration process between YouTubers and brand owners, tackling the challenges associated with influencer marketing. By incorporating sophisticated data scraping, processing, and predictive analytics functions, the platform delivers a streamlined and user-focused solution for both parties.

A. Landing Page

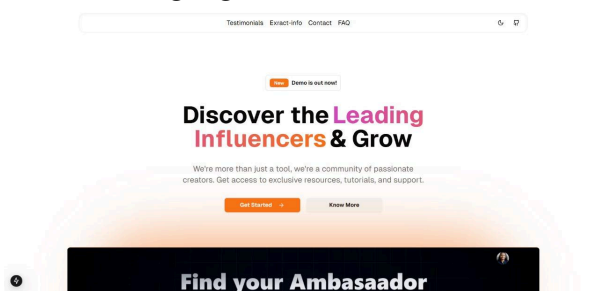


Fig. 4. Landing Page

The landing page of the system offers an intuitive interface that clearly conveys the platform's objectives and value proposition. The design emphasizes user navigation ease, featuring a modern and aesthetically pleasing layout. Important functionalities include straightforward menu options for brand owners and YouTubers to register, log in, and discover platform features.

B. Admin Dashboard

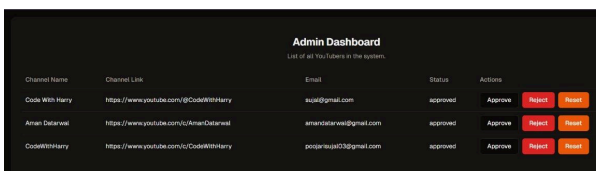


Fig. 5. Admin Dashboard

The admin dashboard presents a well-organized interface that aids in the management of platform operations. It grants access to essential metrics such as the total number of registered YouTubers, current campaigns, and trends in platform activity. Administrators can effectively handle user accounts, keep track of platform performance, and assure smooth workflows through real-time updates and alerts. The organized representation of data supports swift decision-making.

C. Growth Prediction Analysis

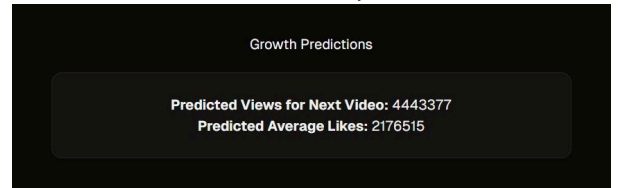


Fig. 6. Growth Prediction

The growth prediction feature, illustrated through comprehensive charts and graphs, emphasizes the system's advanced analytical skills. By evaluating historical data and engagement patterns, the system forecasts future growth indicators such as subscriber numbers, video views, and engagement rates. These insights offer valuable foresight for both YouTubers and brand owners to strategically plan their approaches.

D. Video Performance Analysis

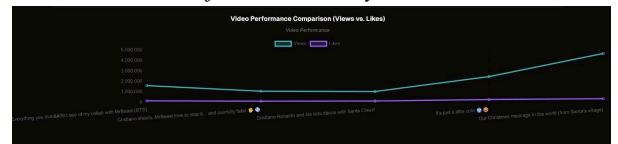


Fig. 7. Video Performance Comparison

A dynamic graph that compares video views with likes provides an engaging assessment of video performance. This visual depiction makes it easier to spot trends and irregularities in viewer engagement. For example, an increase in the likes-to-views ratio may indicate greater audience satisfaction or effective content strategies, whereas a decrease might point to areas needing improvement. This feature is essential for benchmarking content performance.

E. Insights from Last Five Videos

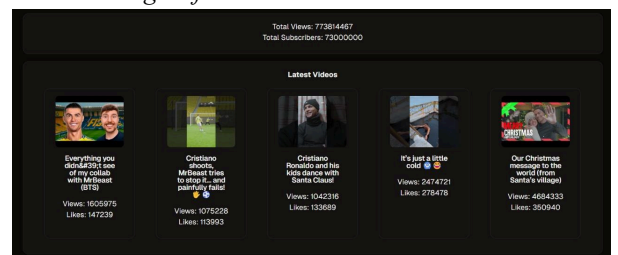


Fig. 8. Insights from the Last Five Videos

The system's ability to summarize insights from the last five videos is a significant feature. These insights

include information on average views, likes, comments, and audience demographics. By presenting this data concisely, the system helps YouTubers enhance their content strategies and aids brand owners in recognizing creators who consistently produce high-quality content.

F. Discussion

The developed platform is able to effectively address critical problems in influencer marketing by offering a comprehensive setting for cooperation between YouTube content creators and brand owners. This is achieved by implementing features like the landing page, admin dashboard, and role-specific functionalities in such a manner that the system operates in an end-user-centric manner. Advanced analytics, which include growth forecasting and video performance indicators, support decisions based on data, while the user-friendly interface improves navigation and usability. The system's strong data processing framework, utilizing the YouTube Data API, provides precise and timely insights. Visual tools, like graphs comparing views and likes, enhance the understanding of data, making the platform a robust and effective solution for influencer marketing campaigns.

V. CONCLUSION

The proposed system clearly illustrates how advanced analytics and user-friendly interfaces can make influencer marketing more effective. It integrates predictive modeling with performance visualization to help not only find the right influencers but also give actionable insights on their content effectiveness. The basic features of the system, ranging from forecasting future engagement metrics to a user-friendly admin dashboard, speak to its ability to connect influencers and brands to enable informed decision-making. The use of regression-based predictive models allows brands and influencers to precisely predict key metrics, such as views and likes, in order to make pre-emptive adjustments for best possible outcomes. The integration of graphical performance evaluations and metadata allows for a data-centric approach and encourages deep analyses that create more transparency and trust within the influencer-brand connection. In addition, the intuitive nature of the system allows it to be used by a wide cross-section of content creators and marketing professionals. Moving forward, the system has significant potential for development and improvement. Future iterations may include more comprehensive measures of engagement, such as shares and audience demographics, to provide a more comprehensive view of an influencer's performance. It would further improve the platform if it included AI-driven recommendation systems, which would propose ideal influencer-brand pairings based on niche compatibility, engagement stats, and past performance. Future upgrades might incorporate a broader array of engagement metrics, such as shares and audience demographics, to offer a more complete understanding of influencer effectiveness. The inclusion of AI-driven recommendation systems could further improve the platform by proposing ideal influencer-brand pairings

based on niche compatibility, engagement stats and past performance.

In summary, the research highlights the importance of merging predictive analytics with practical interfaces to transform influencer marketing. With its present features and potential for future developments, the system lays a solid groundwork for empowering stakeholders to make informed, data-driven choices, promoting growth in the fast-evolving landscape of digital marketing.

REFERENCES

1. B. Kumar, "The Impact of User-Generated Content on Brand Perception: A Case Study of Social Media Platforms," *Int. J. Sci. Res. Eng. Manag.*, vol. 8, no. 1, pp. 1–5, 2024, doi: [10.55041/IJSREM32702](https://doi.org/10.55041/IJSREM32702).
2. C.-P. Chen, "YouTube influencer marketing through parasocial interaction: a dyadic perspective," *J. Res. Interact. Mark.*, ahead-of-print, 2024, doi: [10.1108/JRIM-02-2024-0112](https://doi.org/10.1108/JRIM-02-2024-0112).
3. V. Basile, A. Brandão, and M. Ferreira, "Does user-generated content influence value co-creation in the context of luxury fashion brand communities? Matching inclusivity and exclusivity," *Ital. J. Mark.*, vol. 419, pp. 419–444, 2024, doi: [10.1007/s43039-024-00103-9](https://doi.org/10.1007/s43039-024-00103-9).
4. D. Bansal, N. Bhattacharya, and P. Shandilya, "Influencer marketing unleashed: leveraging data analytics for success," in *advances in data analytics for influencer marketing: An interdisciplinary approach*, S. Dutta, Á. Rocha, P. K. Dutta, P. Bhattacharya, and R. Singh, Eds. Cham: Springer, 2024, vol. 9, pp. 81–95, doi: [10.1007/978-3-031-65727-6_5](https://doi.org/10.1007/978-3-031-65727-6_5).
5. J. Singh and C. Kaur, "Comparative analysis of influencer marketing effectiveness across different social media platforms," *Int. J. Financ. Manag. Econ.*, vol. 7, no. 2, pp. 246–253, 2024, doi: [10.33545/26179210.2024.v7.i2.370](https://doi.org/10.33545/26179210.2024.v7.i2.370).
6. I. Okonkwo and E. Namkoisse, "The role of influencer marketing in building authentic brand relationships online," *J. Digit. Mark. Commun.*, vol. 3, no. 2, pp. 81–90, 2023, doi: [10.53623/jdmc.v3i2.350](https://doi.org/10.53623/jdmc.v3i2.350).
7. G. Chen, Y. Li, and Y. Sun, "How youtubers make popular marketing videos? Speech acts, move structure, and audience response in youtube influencer marketing videos," *SAGE Open*, vol. 13, p. 215824402311522, 2023, doi: [10.1177/21582440231152227](https://doi.org/10.1177/21582440231152227).
8. Ö. Karaman, "Influencer marketing on youtube: A aualitative analysis With MAXQDA," *J. Bus. Adm. Soc. Stud.*, vol. 7, pp. 123–132, 2023, doi: [10.5152/JBASS.2023.23021](https://doi.org/10.5152/JBASS.2023.23021).
9. R. Katendra and M. K. Sahoo, "Effectiveness of influencer marketing on consumer purchase behaviour," *Iconic Res. Eng. J.*, vol. 6, no. 12, pp. 1254–1261, 2023.
10. N. Pourazad, L. Stocchi, and S. Narsey, "A comparison of social media influencers' KPI Patterns across Platforms," *J. Advert. Res.*, vol. 63, no. 2, pp. 139–159, 2023, doi: [10.2501/jar-2023-008](https://doi.org/10.2501/jar-2023-008).
11. L. Ao, R. Bansal, N. Pruthi, and M. B. Khaskheli, "Impact of social media influencers on customer engagement and purchase intention: A meta-analysis," *Sustainability*, vol. 15, no. 3, p. 2744, 2023, doi: [10.3390/su15032744](https://doi.org/10.3390/su15032744).
12. M. Ehliz, "Prediction accuracy of youtube influencers measured against subscriber counts," *J. Student Res.*, vol. 11, no. 3, 2022, doi: [10.47611/jsrhs.v11i3.3332](https://doi.org/10.47611/jsrhs.v11i3.3332).
13. I. H. Efendioglu and Y. Durmaz, "The impact of perceptions of social media advertisements on advertising value, brand awareness, and brand associations: Research on Generation Y Instagram users," *arXiv*, vol. 2209.13596, 2022, doi: [10.48550/arXiv.2209.13596](https://doi.org/10.48550/arXiv.2209.13596).
14. H. Kao, "The influence of user-generated content (UGC) on consumer purchase intention," *J. Textile Sci. Fashion Technol.*, vol. 9, 2022, doi: [10.33552/ITSFT.2022.09.000725](https://doi.org/10.33552/ITSFT.2022.09.000725).
15. S. Burnaz and F. Acikgoz, "The influence of 'influencer marketing' on YouTube influencers," *Int. J. Internet Mark. Advert.*, vol. 15, p. 201, 2021, doi: [10.1504/IJIMA.2021.10036966](https://doi.org/10.1504/IJIMA.2021.10036966).

Chapter 10

Bibliography

- 1) Kumar, B.: The Impact of User-Generated Content on Brand Perception: A Case Study of Social Media Platforms. *International Journal of Scientific Research in Engineering and Management*, 8(1), 1–5 (2024). <https://doi.org/10.55041/IJSREM32702>
- 2) Chen, C.-P.: YouTube influencer marketing through parasocial interaction: a dyadic perspective. *Journal of Research in Interactive Marketing*, ahead-of-print (2024). <https://doi.org/10.1108/JRIM-02-2024-0112>
- 3) Basile, V., Brandão, A., Ferreira, M.: Does user-generated content influence value co-creation in the context of luxury fashion brand communities? Matching inclusivity and exclusivity. *Italian Journal of Marketing*, 419–444 (2024). <https://doi.org/10.1007/s43039-024-00103-9>
- 4) Bansal, D., Bhattacharya, N., Shandilya, P.: Influencer Marketing Unleashed: Leveraging Data Analytics for Success. In: Dutta, S., Rocha, Á., Dutta, P.K., Bhattacharya, P., Singh, R. (eds) *Advances in Data Analytics for Influencer Marketing: An Interdisciplinary Approach*. Information Systems Engineering and Management, vol. 9, pp. 81–95. Springer, Cham (2024). https://doi.org/10.1007/978-3-031-65727-6_5
- 5) Singh, J., Kaur, C.: Comparative analysis of influencer marketing effectiveness across different social media platforms. *International Journal of Financial Management and Economics*, 7(2), 246–253 (2024). <https://doi.org/10.33545/26179210.2024.v7.i2.370>
- 6) Okonkwo, I., Namkoisse, E.: The Role of Influencer Marketing in Building Authentic Brand Relationships Online. *Journal of Digital Marketing and Communication*, 3(2), 81–90 (2023). <https://doi.org/10.53623/jdmc.v3i2.350>
- 7) Chen, G., Li, Y., Sun, Y.: How YouTubers Make Popular Marketing Videos? Speech Acts, Move Structure, and Audience Response in YouTube Influencer Marketing Videos. *SAGE Open*, 13, 215824402311522 (2023). <https://doi.org/10.1177/21582440231152227>
- 8) Karaman, Ö.: Influencer Marketing on YouTube: A Qualitative Analysis With MAXQDA. *Journal of Business Administration and Social Studies*, 7, 123–132 (2023). <https://doi.org/10.5152/JBASS.2023.23021>
- 9) Katendra, R., Sahoo, M.K.: Effectiveness of Influencer Marketing on Consumer Purchase Behaviour. *Iconic Research and Engineering Journals*, 6(12), 1254–1261 (2023).
- 10) Pourazad, N., Stocchi, L., Narsey, S.: A Comparison of Social Media Influencers' KPI Patterns across Platforms. *Journal of Advertising Research*, 63(2), 139–159 (2023). <https://doi.org/10.2501/jar-2023-008>
- 11) IAo, L., Bansal, R., Pruthi, N., Khaskheli, M.B.: Impact of Social Media Influencers on Customer Engagement and Purchase Intention: A Meta-Analysis. *Sustainability*, 15(3), 2744 (2023). <https://doi.org/10.3390/su15032744>
- 12) Ehliz, M.: Prediction Accuracy of YouTube Influencers Measured Against Subscriber Counts. *Journal of Student Research*, 11(3) (2022). <https://doi.org/10.47611/jsrhs.v11i3.3332>
- 13) Efendioglu, I.H., Durmaz, Y.: The impact of perceptions of social media advertisements on advertising value, brand awareness, and brand associations: Research on Generation Y Instagram users. *arXiv*, 2209.13596 (2022). <https://arxiv.org/abs/2209.13596>
- 14) Kao, H.: The Influence of User-Generated Content (UGC) on Consumer Purchase Intention. *Journal of Textile Science & Fashion Technology*, 9 (2022). <https://doi.org/10.33552/JTSFT.2022.09.000725>
- 15) Burnaz, S., Acikgoz, F.: The influence of 'influencer marketing' on YouTube influencers. *International Journal of Internet Marketing and Advertising*, 15, 201 (2021). <https://doi.org/10.1504/IJIMA.2021.10036966>
- 16) Schwemmer, C., Ziewiecki, S.: Social Media Sellout: The Increasing Role of Product Promotion on YouTube. *Social Media + Society*, 4(3), 205630511878672 (2018). <https://doi.org/10.1177/2056305118786720>

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