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Voxspace- A Platform for Every Voice

Sarthak Agarwal[1], Abhishek Singh Rajput[2], Devisha Agrawal[3], Indumathy. M[4]

Student, Computer Science and Engineering, SRM Institute of Science and Technology, Chennai, India[1-3]

Assistant Professor, Computer Science and Engineering,

SRM Institute of Science and Technology, Chennai, India[4]

Abstract: This project presents an AI-enabled blogging platform designed to allow users to share blogs while ensuring safe and moderated content. The system includes three main users: public users, administrators, and government authorities. Public users can write and publish blogs along with images through a web interface. When a blog is submitted, the server processes the content using AI-based text moderation and image classification to detect abusive or inappropriate material.

If the content is safe, it is automatically published on the public blog page. If the system detects harmful content, the blog is flagged and sent to the administrator for review and approval. The platform also includes an AI commenting feature that generates automated feedback on blog posts.

Overall, the system improves content quality, user engagement, and responsible communication by integrating artificial intelligence with a modern blogging platform.

Keywords: Next.js, Blog Management System, User Authentication, PostgreSql, Server-Side Rendering, AI-Based Content Moderation, AI commenting, Image Classification, Web Security, Fast Api

I. INTRODUCTION

With the increasing use of online platforms, blogging has become a popular way for users to share opinions, ideas, and daily experiences. However, open blogging platforms often face challenges such as abusive content, inappropriate images, and misinformation. Manual moderation of such content is time-consuming and inefficient. This paper proposes an AI-powered blogging platform that automatically moderates user-generated content. The system uses artificial intelligence for text moderation, image classification, and AI-based commenting. Users can post blogs, and the AI system analyzes the content before publishing. If the content is safe, it is published on the public page. If abusive or inappropriate content is detected, it is sent to the admin for review.

The platform supports two types of users: public users and administrators. Public users create blogs, while administrators review flagged content and manage the platform. The proposed system aims to create a secure, intelligent, and user-friendly blogging platform

II. SYSTEM WORKFLOW

The proposed AI-powered blogging platform follows a structured workflow to ensure efficient content moderation and publishing. The workflow consists of stages such as data collection, AI-based content analysis, administrative review, and final publishing.

A. Data Collection

The workflow begins when users submit blog content through the web interface. The submitted data includes the blog title, textual content, and optional images. Once submitted, the data is transmitted to the server for further processing and analysis.

B. Content Analysis

In this stage, the submitted blog content is analyzed using AI models without modifying the original content. The text moderation module checks for abusive or inappropriate language, while the image classification module evaluates uploaded images for harmful or unsuitable content. If the content is appropriate, it proceeds to the next stage; otherwise, it is flagged for review.

C. AI Comment Generation

After content analysis, the AI commenting module generates relevant suggestions or feedback based on the blog

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content. These comments help improve engagement and provide additional insights related to the blog.

D. Administrative Review

If the content is flagged during AI analysis, it is marked as pending and forwarded to the administrator for manual review. The administrator evaluates the flagged content and decides whether to approve or reject the blog according to platform guidelines.

E. Publishing

Once approved, the blog is published on the public page. Users can view the blogs, interact with content, and access AI-generated suggestions, ensuring a safe and user-friendly blogging environment.

III. FEATURE

A. Sentiment Analysis-Based Content Moderation

The platform uses a trained sentiment analysis model to evaluate blog text and determine whether the content is appropriate. If the content is identified as inappropriate or harmful, it is automatically flagged for admin review.

B. Image Classification Model

The system includes a trained image classification model that categorizes uploaded images into safe, violence, and NSFW classes. Images classified as unsafe are flagged to prevent inappropriate content from being published.

C. AI Comment Generation Using Ollama

The platform uses an Ollama-based AI model to generate intelligent comments and suggestions for blog content. This feature enhances user engagement and provides meaningful feedback.

D. Automated Blog Publishing

Blogs that pass both text and image moderation are automatically published on the public page, improving efficiency and reducing manual work.

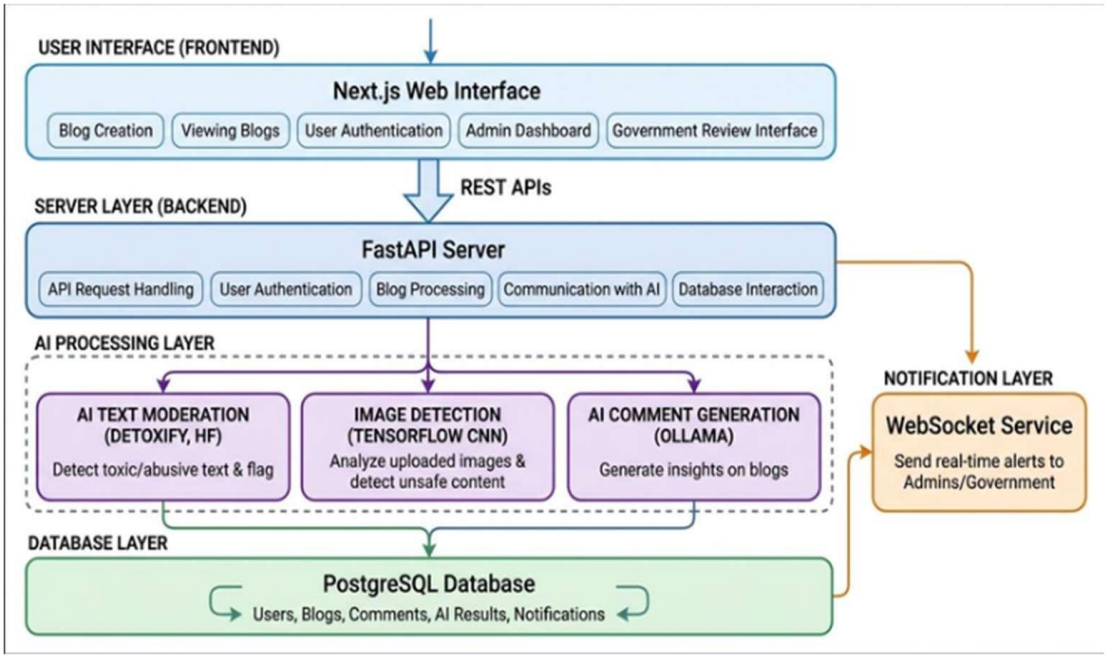
E. Admin Review System

Flagged blogs are forwarded to administrators for manual review, where they can approve or reject the content.

F. User-Friendly Web Interface

The platform provides an easy-to-use web interface for users to create, view, and interact with blog posts.

IV. SYSTEM ARCHITECTURE DIAGRAM



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V. TECHNICAL STACK

So.no.	Component	Technology Used	Description
1.	Frontend	Next.js	Provides a responsive and interactive web interface for users to create and view blogs.
2.	Backend	Fast API	Handles API requests, content processing, and communication between frontend and AI modules.
3.	AI Text Moderation	Sentiment Analysis Model	Trained model used to detect inappropriate or abusive text content.
4.	Image Classification	TensorFlow	Trained model used to classify images into Safe, Violence, and NSFW categories.
5.	AI Commenting	Ollama Model	Generates AI-based comments and suggestions for blog content.
6.	Database	PostgreSQL	Stores user data, blogs, comments, and moderation results.
7.	Libraries	Pandas, NumPy, Scikit-learn	Used for data processing, model training, and analysis.
8.	Deployment Platform	Local Server	Hosts the application for real-time access and usage.

VI. CONCLUSION

This paper presented an AI-powered blogging platform designed to ensure safe and meaningful content sharing. The system integrates sentiment analysis for text moderation, image classification for detecting unsafe images, and AI-based commenting using an Ollama model. These features help maintain content quality and reduce manual moderation efforts.

The proposed platform allows users to post blogs while automatically analyzing content for inappropriate or harmful material. If any content is flagged, it is forwarded to the administrator for review, ensuring controlled and secure publishing. The automated moderation process improves efficiency and enhances user experience.

Overall, the system provides a reliable and intelligent blogging environment by combining artificial intelligence with web technologies. Future enhancements may include improving model accuracy, adding multilingual support, and integrating advanced analytics to further enhance platform performance and usability.

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