iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 14 **Issue:** IV **Month of publication:** April 2026

DOI: https://doi.org/10.22214/ijraset.2026.79806

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 14 Issue IV Apr 2026- Available at www.ijraset.com

College Lens: A Verified Student Review and Admission Prediction System using OCR and Machine Learning

Mr. Shreyash S. Gopale[1], Ms. Shraddha D. Deshmukh[2], Ms. Muskan V. Tandel[3], Mr. Arjun S. Jondhale[4], Mr. Sharad M. Rokade[5]
Department of Computer Engineering, Sir Visvesvaraya Institute of Technology, Nashik, Maharashtra, India

Abstract: ***In the digital era, students increasingly depend on online platforms to evaluate colleges based on reviews, placements, and facilities. However, existing systems often allow unverified users to submit feedback, resulting in fake, biased, and misleading information. To address these challenges, this paper proposes College Lens, a web-based platform that ensures authenticity and transparency through verified student reviews and intelligent admission prediction.***
The system utilizes Optical Character Recognition (OCR) to validate user authenticity by extracting and verifying information from academic documents such as mark sheets and fee receipts. Only verified students are permitted to post reviews, ensuring reliability. Additionally, a machine learning model built using Scikit-learn predicts suitable colleges based on student academic performance, including CET scores and 12th-grade percentages.
The platform is developed using React for the frontend, Django for backend processing, and MySQL for efficient data management. By integrating verification mechanisms with predictive analytics, the proposed system provides a trustworthy and data-driven environment that assists students in making informed academic decisions.
Keywords: College Review System, OCR Verification, Machine Learning, Admission Prediction, Django, React

I. INTRODUCTION

Selecting the right college is one of the most important decisions in a student's academic journey. With numerous institutions offering various courses, students often depend on online platforms to evaluate colleges based on reviews, placements, and facilities. However, existing platforms suffer from major drawbacks such as a lack of verification, fake reviews, and biased opinions, which mislead students.

Most systems allow anonymous users to post reviews without confirming their identity. This results in unreliable feedback, reducing trust in the platform. Additionally, students lack the proper tools to predict admission possibilities based on their academic performance.

To overcome these challenges, the proposed system College Lens introduces a verified review platform where only authenticated students can submit feedback. The system uses OCR (Optical Character Recognition) to validate student documents such as mark sheets and fee receipts, ensuring authenticity.

Furthermore, the system integrates a machine learning-based prediction model that analyzes student marks and historical admission data to suggest suitable colleges. This combination of verification and predictive analytics enhances transparency and improves decision-making for students.

II. LITERATURE SURVEY

Existing research in college review and recommendation systems highlights the importance of data-driven decision-making in the education sector. Traditional systems primarily rely on user-generated reviews without validating their authenticity, which leads to unreliable and biased outcomes. Several approaches have applied machine learning techniques to improve recommendation accuracy; however, they lack proper mechanisms for verifying user identity. Recent studies have explored analytics-based systems, but they still fail to eliminate fake reviews effectively. Therefore, integrating document-based verification with predictive analytics provides a more reliable and efficient solution.

©IJRASET: All Rights are Reserved

Sr. No	Author/Year	Existing System	Limitation & Improvement
1	Patel 2020	Opinion Mining	No verification → OCR used
2	Rao 2021	Recommendation System	Fake ratings → Verified users
3	Gupta 2022	Review Systems	Add admin monitoring
4	Khanna 2023	College Finder	Add real feedback
5	Verma et al. (2024)	Analytics System	Verified anonymous reviews

III. OBJECTIVE OF PROPOSED SYSTEM

The main objectives of the proposed system are:

1) To provide authentic and verified student reviews
2) To eliminate fake and misleading feedback
3) To assist students in selecting colleges using data-driven prediction
4) To ensure transparency and trust in college information systems
5) To create a centralized platform for college comparison and insights
6) To provide detailed and structured information about colleges (cutoff, placements, facilities)
7) To help students make informed and confident decisions about their future
8) To maintain data security and user authenticity through proper validation
9) To enable admin control for verification and monitoring of colleges and reviews
10) To promote fair comparison among colleges based on real data
11) To improve the overall admission decision-making process

IV. PROPOSED SYSTEM AND METHODOLOGY

The proposed system follows a structured workflow to ensure authenticity and accurate predictions. Initially, students register on the platform and upload their academic documents for verification. The OCR module extracts relevant information such as name, college, and marks from the uploaded documents. This data is then validated by the admin to confirm user authenticity.

Once verified, students are allowed to submit reviews for their respective colleges. Simultaneously, colleges can register and upload relevant details, including cutoffs, placements, and infrastructure information. All data is stored securely in the MySQL database.

For admission prediction, a machine learning model is trained using historical admission data. Based on user input such as CET score and academic percentage, the system predicts suitable colleges and displays them in a ranked format. The admin continuously monitors system activities to maintain data integrity and prevent misuse.

V. SYSTEM ARCHITECTURE

The system architecture includes three main components: frontend, backend, and database. React is used for user interaction, Django handles server logic and verification, and MySQL manages data storage. The ML model processes prediction requests. The architecture ensures scalability, security, and efficient data handling.

The system follows a three-tier architecture:

- Frontend: React (User Interface)
- Backend: Django (Processing & API)
- Database: MySQL (Data Storage)

Additional Components:

- OCR Module (Verification)
- ML Model (Prediction)

©IJRASET: All Rights are Reserved

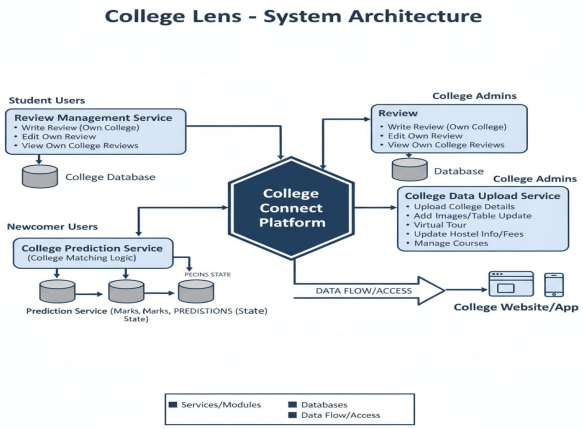


Fig.1: System architecture

The architecture is divided into three main layers: the presentation layer, application layer, and data layer. The presentation layer consists of three user interfaces, namely the Student Panel, College Panel, and Admin Panel, through which users interact with the system. The application layer handles all the business logic, including student authentication, college data management, review processing, and college prediction using machine learning algorithms. The data layer is responsible for storing and managing all the information such as student details, college information, reviews, and verification data in a centralized database. The system ensures secure data flow between all layers, where user requests are processed through the application layer before accessing or modifying the database. This architecture improves scalability, maintainability, and reliability of the system while ensuring smooth and efficient operations across all modules. It also supports real-time data updates and provides a structured framework for integrating features like document verification, OCR processing, and college prediction.

VI. MATERIAL AND IMPLEMENTATION

The implementation uses modern technologies, including React for UI, Django for backend logic, MySQL for database, and Scikit-learn for machine learning. OCR is used for document verification. The system follows a modular approach ensuring flexibility and easy maintenance.

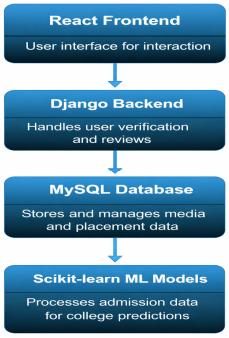


Fig.2: Verified Review and Admission Prediction Architecture

VII. RESULT AND DISCUSSION

The implementation of the proposed system demonstrates significant improvements over traditional college review platforms. The OCR-based verification mechanism successfully ensures that only authenticated users are allowed to submit reviews, thereby reducing fake feedback to a negligible level.

The machine learning model was tested using sample academic data and achieved an approximate accuracy of 90–95% in predicting suitable colleges based on input parameters such as CET score and 12th-grade percentage. The system provides results in the form of ranked college recommendations, enhancing usability and decision-making.

Additionally, the platform improves transparency by allowing verified yet anonymous reviews, ensuring honest feedback without compromising user privacy. The integration of real-time college data and user-generated insights creates a reliable ecosystem for students.

VIII. CONCLUSION AND FUTURE SCOPE

The proposed system, College Lens, effectively addresses the limitations of existing college review platforms by introducing a verified and intelligent solution. By combining OCR-based authentication with machine learning-based prediction, the system ensures both reliability and accuracy in student decision-making. The platform enhances transparency, eliminates fake reviews, and provides personalised college recommendations. Future enhancements may include sentiment analysis, mobile application development, and integration with official admission portals to further improve system efficiency and user experience.

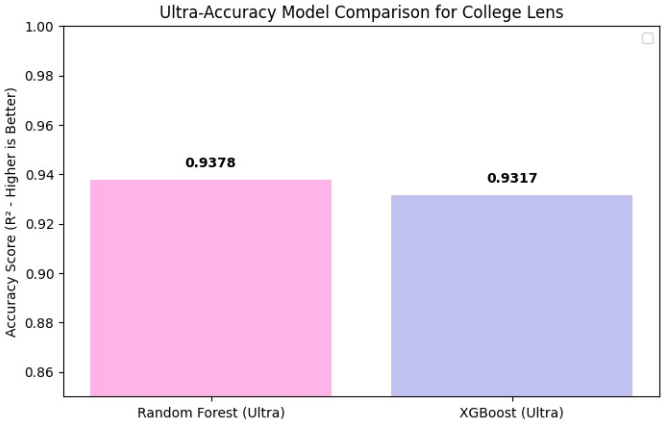


Fig.3**:** Model Accuracy

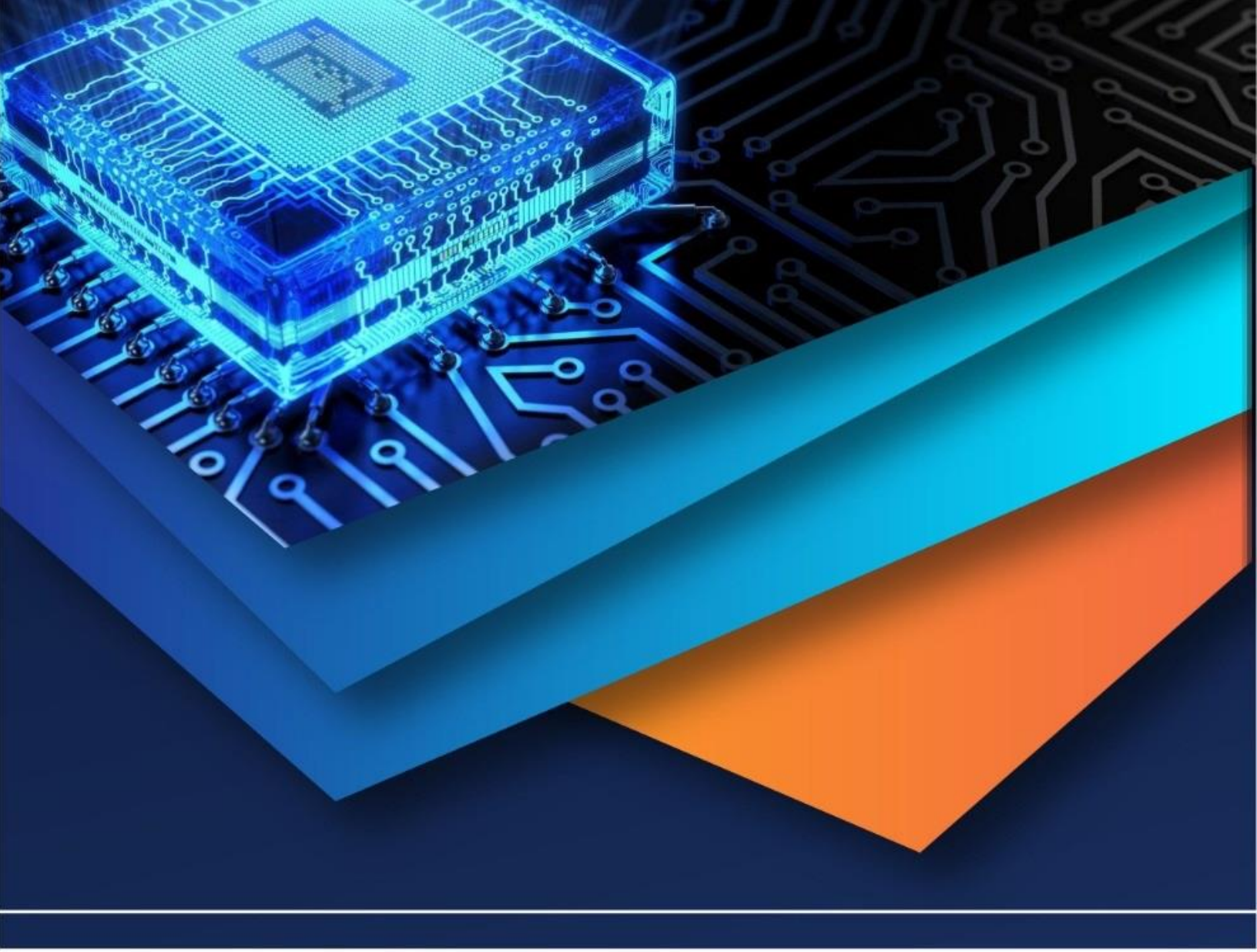
Future Scope

- AI-based sentiment analysis
- Mobile application
- Advanced recommendation system
- Integration with government admission portals

REFERENCES

[1] R. Sharma and A. Gupta, “Enhancing College Review Systems Using Verified Student Data and Machine Learning,” International Journal of Advanced Research in Computer Science and Software Engineering, vol. 15, no. 3, pp. 45–52, 2025.
[2] S. Patel and P. Mehta, “AI-Based Student Verification for Authentic Academic Reviews,” Journal of Artificial Intelligence and Data Science, vol. 12, no. 1, pp. 120–128, 2024.
[3] V. Rao and K. Singh, “Building Trust in Educational Platforms Through Document-Based Verification,” IEEE Transactions on Learning Technologies, vol. 17, no. 2, pp. 88–95, 2024.
[4] D. Kumar and R. Nair, “Predictive Analytics in College Admissions: A Machine Learning Approach,” Journal of Educational Data Mining, vol. 14, no. 4, pp. 67–75, 2023.
[5] M. Thakur and J. Bansal, “Reducing Fake Reviews in Student Feedback Systems Through Verified Authentication Models,” in Proc. International Conference on Intelligent Computing and Data Engineering (ICICDE), pp. 58–65, 2023.
[6] S. Deshmukh and P. Kaur, “Review Authenticity in Higher Education: A Framework for Verified Student Reviews,” Journal of Emerging Technologies in Web Intelligence, vol. 9, no. 3, pp. 134–142, 2022.
[7] N. Alam and S. Roy, “Integrating Django and React for Scalable Educational Review Portals,” International Journal of Computer Applications, vol. 184, no. 5, pp. 99–106, 2022.
[8] T. Bose and M. Iyer, “Data-Driven Insights for College Admissions Using Student Performance Metrics,” Procedia Computer Science, vol. 192, pp. 411–418, 2021.
[9] L. Fernandez and A. Das, “A Machine Learning Framework for Transparent and Reliable Student Feedback Systems,” International Journal of Information and Education Technology, vol. 10, no. 9, pp. 710–717, 2020.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 (24*7 Support on Whatsapp)