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ScamLens: A Rule-Based Web Platform for Internship Offer Verification and Fraud Detection

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Abstract:

Internships play a crucial role in shaping students' careers by providing practical exposure and industry experience. However, the increasing use of online recruitment platforms has also led to a significant rise in fraudulent internship offers. Many students face challenges in identifying the authenticity of such offers due to a lack of reliable verification tools and awareness.

This paper presents ScamLens, a rule-based web platform designed to detect and classify internship offers based on predefined risk indicators. The system evaluates parameters such as payment requests, suspicious email domains, unrealistic promises, and urgency tactics to generate a risk score and categorize offers into Low, Medium, or High risk levels.

Unlike complex machine learning approaches, ScamLens provides a lightweight, efficient, and user-friendly solution suitable for real-time applications. The platform also includes a centralized dashboard and reporting system to enhance awareness and track scam patterns. The results demonstrate that ScamLens improves decision-making, reduces manual effort, and enhances student safety. Future enhancements include AI-based detection and real-time verification mechanisms.

Keywords—Internship Fraud Detection; Rule-Based Systems; Scam Detection; Web Application; Risk Analysis; Student Safety

I. INTRODUCTION

Internships are an essential component of academic and professional development, enabling students to gain practical knowledge and real-world experience. With the rapid growth of digital platforms, students now have access to a wide range of internship opportunities. However, this accessibility has also resulted in an increase in fraudulent internship offers.

Many students struggle to verify the authenticity of internship opportunities due to the absence of structured verification systems. Traditional methods such as checking online reviews, searching for company details, or relying on peer suggestions are often unreliable and inconsistent.

Advancements in web technologies and data analysis have made it possible to develop automated systems for fraud detection. Rule-based systems provide a simple yet effective approach by applying predefined logical conditions.

This paper introduces ScamLens, a rule-driven web platform that analyzes internship offers and identifies potential fraud indicators.

II. LITERATURE REVIEW

Several studies have explored the detection of fraudulent job and internship postings using advanced technologies such as machine learning, deep learning, and natural language processing.

Deep learning models like BERT analyze job descriptions effectively but require high computational power and large datasets. Other methods such as Support Vector Machines, Decision Trees, and Logistic Regression depend heavily on feature engineering.

Most existing systems are not specifically designed for internship verification and lack usability for students. ScamLens addresses these issues using a simple and efficient rule-based approach.

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III. PROBLEM STATEMENT

The current system for internship verification faces several challenges:

- Lack of automated analysis tools
- Dependence on unreliable sources
- High risk of fraud and misinformation
- Absence of a centralized tracking platform

These limitations make students vulnerable to fraudulent internship offers, leading to financial loss and negative experiences.

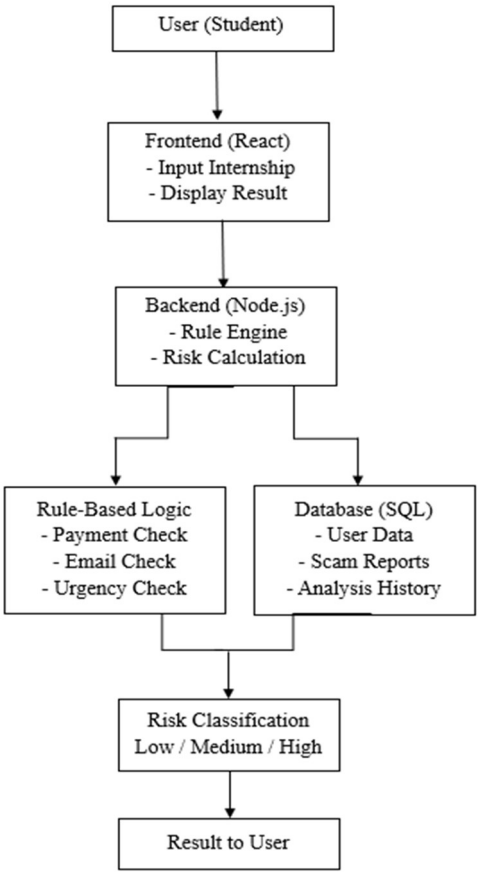
IV. PROPOSED SYSTEM

ScamLens is a rule-based web platform designed to analyze internship offers and identify potential fraud indicators.

A. System Architecture

The system follows a three-tier architecture:

- Frontend: React-based user interface
- Backend: Node.js for processing and analysis
- Database: SQL-based data storage

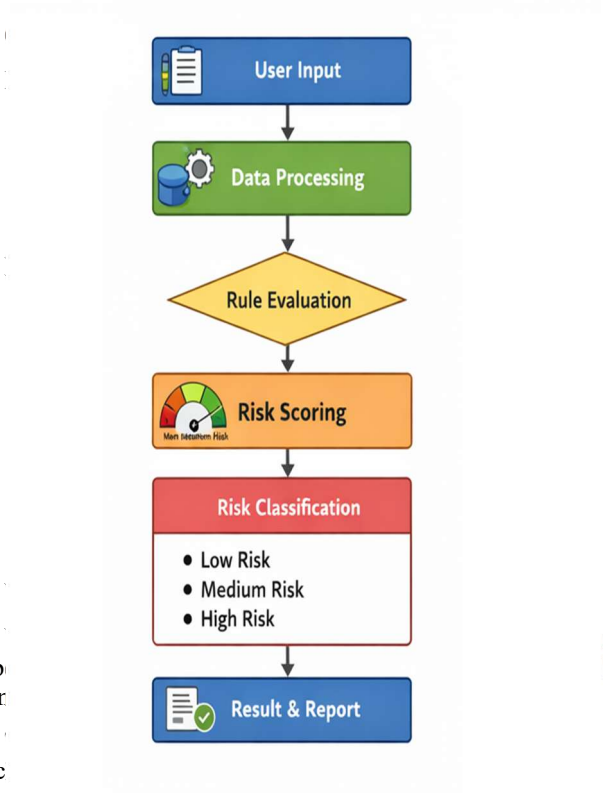


B. Rule-Based Analysis

The system evaluates internship offers based on:

- Payment requests
- Suspicious email domains
- Unrealistic salary or promises
- Urgency tactics

Each factor contributes to a calculated risk score.



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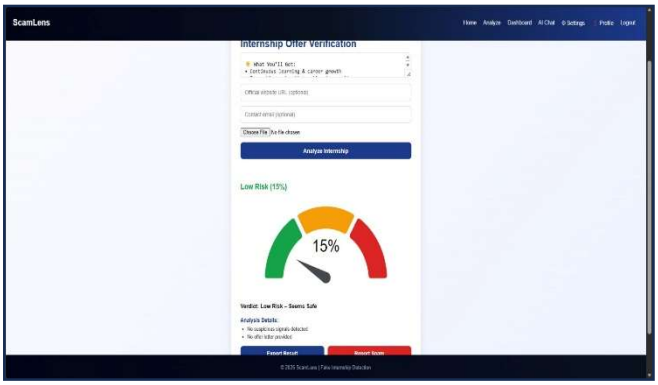
VI.
THE :

- EFFICIENCY: REDUCES MANUAL EFFORT
- ACCURACY: DETECTS FRAUD INDICATORS
- AWARENESS: PROVIDES INSIGHTS VIA DASHBOARD

HOWEVER, THE SYSTEM DEPENDS ON PREDEFINED RULES, WHICH MUST BE UPDATED REGULARLY.



VII. CONCLUSION

ScamLens provides a simple and effective solution for detecting fraudulent internship offers. It enhances student awareness, reduces dependency on unreliable sources, and promotes safer internship searches.

VIII. FUTURE WORK

Future enhancements include:

- Integration of AI and NLP
- Real-time company verification APIs
- Mobile application development
- AI chatbot assistance
- Enhanced security features

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