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ijmrset@gmail.com



www.ijmrset.com



# Interns Heaven

**Barnali Chakrabarty, Bhagyashree V Kotabal**

Associate Professor, Department of MCA, AMC Engineering College, Bengaluru, India

PG Student, Department of MCA, AMC Engineering College, Bengaluru, India

**ABSTRACT:** The Internship Portal is an online platform that simplifies the process of connecting students with internship opportunities. It provides a user-friendly interface for students to register, search for internships based on their qualifications, and apply directly. The portal aims to address the challenges associated with traditional internship search methods, such as relying on print media, job fairs, or individual company websites. By offering advanced search features, the Internship Portal enables students to find internships that closely match their skill sets and requirements. The system is designed to be systematic and accessible regardless of the geographic location of the job seeker or company. By leveraging technology, the Internship Portal streamlines the internship search process, ultimately saving time and resources for both students and employers.

The internship portal project is designed to streamline the process of connecting students with valuable internship opportunities. It provides a comprehensive platform where students can create detailed profiles, upload resumes, and search for internships that align with their skills and career aspirations. The portal's user-friendly interface and advanced search filters ensure that students can easily find and apply for positions that match their qualifications and interests.

For employers, the portal offers a convenient way to post internship listings, review applications, and select candidates who meet their specific requirements. Employers can access a diverse pool of talented students, view their profiles and resumes, and communicate directly with potential interns through the platform. This efficient recruitment process helps companies save time and resources while finding the right fit for their internship programs.

## I. INTRODUCTION

The internship portal project is envisioned as a dynamic platform designed to bridge the gap between students and the professional world. Recognizing the critical role that internships play in career development, the portal aims to simplify and enhance the process of securing internships. It provides a centralized space where students can explore a wide range of opportunities tailored to their academic background and career aspirations. By streamlining the search and application process, the portal empowers students to make informed decisions about their internships, ensuring that they gain valuable hands-on experience in their chosen fields.

For employers, the internship portal offers a robust tool to connect with a diverse pool of emerging talent. Companies can post detailed internship listings, specifying their requirements and expectations, which helps attract the most suitable candidates. The platform's intuitive interface and comprehensive search capabilities allow employers to efficiently sift through applications and identify candidates who align with their organizational needs. This not only expedites the recruitment process but also enhances the quality of intern placements, leading to more productive and beneficial internships for both parties.

In addition, the internship portal incorporates features to support ongoing professional development and mentorship. Students can access resources such as resume-building tools, interview preparation guides, and career advice articles to enhance their readiness for the professional world. The platform also encourages feedback and evaluations, enabling students to reflect on their experiences and employers to provide constructive input. This continuous feedback loop fosters a culture of learning and improvement, ensuring that both students and employers derive maximum value from the internship experience.

Through these comprehensive features, the internship portal not only facilitates the initial connection between students and employers but also nurtures the growth and development of future professionals.



## II. LITERATURE SURVEY

Numerous online platforms cater to internship seekers, with well-known systems like LinkedIn, merojob, and freelancer.com operating on both national and international levels. The typical process on these platforms involves:

Users logging in and setting up a profile.

Users searching for internships that match their skills and interests.

Users uploading their credentials and applying for relevant positions.

Users receiving an email notification from the company if they are shortlisted.

Users engaging in direct communication with the company to schedule a meeting.

The concept of an internship portal has gained significant attention in academic and professional circles due to its potential to bridge the gap between education and practical work experience. Various studies have emphasized the importance of internships in enhancing students' employability and career readiness. For instance, Knouse, Tanner, and Harris (1999) highlighted that students who participate in internships are more likely to secure employment upon graduation and command higher starting salaries. This underscores the critical role that internships play in career development and the need for efficient systems to connect students with relevant opportunities.

Moreover, research indicates that internship portals can significantly streamline the recruitment process for both students and employers. A study by Gardner (2010) found that the traditional methods of securing internships, such as job fairs and direct applications, are often time-consuming and inefficient. Internship portals address these issues by providing a centralized platform where students can easily search and apply for internships, and employers can post vacancies and manage applications. The integration of advanced search algorithms, machine learning, and data analytics allows these platforms to offer personalized internship recommendations based on students' profiles, preferences, and academic backgrounds. According to a study by Kapoor and Gardner (2015), these technological enhancements improve the relevance and quality of internship matches, thereby increasing student satisfaction and engagement. Additionally, features such as real-time notifications and application tracking systems keep users informed and engaged throughout the process. The effectiveness of internship portals also lies in their ability to facilitate ongoing communication and feedback between students and employers. Studies by McHugh (2017) emphasize the importance of feedback in internships, noting that constructive feedback helps students develop critical skills and improve their performance. Internship portals that incorporate feedback mechanisms enable students to receive timely evaluations and employers to provide structured feedback. This continuous interaction not only enhances the internship experience but also contributes to the professional growth of students. Furthermore, literature highlights the role of internship portals in supporting diversity and inclusion in the workplace. Research by Parker and Pascarella (2013) suggests that internship portals can help underrepresented groups access a broader range of opportunities by breaking down geographic and socioeconomic barriers. By providing a diverse array of internship listings and promoting inclusive hiring practices, these portals can contribute to a more equitable and diverse workforce. This aligns with broader organizational goals of fostering inclusivity and ensures that all students, regardless of their background, have equal access to career-enhancing opportunities. In conclusion, the literature underscores the multifaceted benefits of internship portals in enhancing the internship process for students and employers alike. These platforms not only facilitate the initial connection between students and employers but also support continuous learning and development, ultimately contributing to the success of future professionals and organizations.

## III. SYSTEM ANALYSIS

### EXISTING SYSTEM AND PROPOSED SYSTEM:

#### EXISTING SYSTEM:

The current landscape of internship portals includes platforms such as LinkedIn, merojob, and freelancer.com, which provide a variety of internship opportunities. These systems serve a broad audience, connecting students with potential employers across different industries and regions. While these platforms are widely used and offer essential functionalities, they have certain limitations that can be addressed by a more specialized and focused internship portal.

#### Limitations of Existing Systems:

**Generic Approach: Broad Focus:** Platforms like LinkedIn cater to a wide range of job seekers, not just those looking for internships. This broad focus can make it difficult for students to find relevant internship opportunities among a sea of full-time job listings.

**Lack of Specialization:** Existing platforms often lack the specialized features that cater specifically to the needs of internship seekers and providers, such as tailored search filters and resources for career development.



**User Experience:Complex Navigation:** Many of the current platforms have complex interfaces with numerous features, which can be overwhelming for students who are primarily interested in finding internships.

**Insufficient Guidance:** These platforms often lack comprehensive guidance and support for students on how to prepare for internships, improve their profiles, or navigate the application process effectively.

**Matching Efficiency:Imprecise Matching:** The algorithms used by existing platforms for matching students with internship opportunities are often not sophisticated enough to consider all relevant factors, leading to less-than-optimal matches.

**Limited Feedback Mechanisms:** There is often a lack of mechanisms for continuous feedback and improvement, both for students and employers.

**Communication and Follow-Up:Fragmented Communication:** Communication between students and employers is not always seamless or well-integrated into the platform, leading to delays and inefficiencies.

**Lack of Engagement:** The platforms do not sufficiently facilitate ongoing engagement between students and employers, which is crucial for building professional relationships and ensuring successful internships.

### **PROPOSED SYSTEM:**

The proposed internship portal is designed to address the limitations of existing systems by offering a focused, efficient, and user-friendly platform specifically tailored to the needs of internship seekers and providers. This portal will enhance the internship search and application process, improve matching efficiency, and provide comprehensive support and resources for both students and employers.

### **Key Features and Benefits**

**\*Specialized Focus: Internship-Centric Platform:** Unlike broader job portals, the proposed system will be dedicated solely to internships, ensuring that all features and functionalities are optimized for this purpose.

**\*Tailored Search Filters:** Advanced search filters will allow students to find internships based on specific criteria such as industry, location, duration, and skill requirements.

**\*Enhanced User Experience:**

**Intuitive Interface:** The platform will feature a clean, intuitive interface that is easy to navigate, making it simple for users to find and apply for internships.

**Comprehensive Guidance:** The system will offer resources and tools to help students build strong profiles, prepare for interviews, and understand the internship process. This includes resume-building tools, interview preparation guides, and career advice articles. Utilizing machine learning and data analytics, the platform will provide personalized internship recommendations based on students' profiles, preferences, and academic backgrounds.

**Continuous Improvement:** Feedback from both students and employers will be used to continuously refine the matching algorithms, ensuring that the system evolves and improves over time.

**\*Seamless Communication and Engagement:**

**Integrated Messaging System:** A built-in messaging system will facilitate direct and timely communication between students and employers, streamlining the interview setup and follow-up process.

**Real-Time Notifications:** Users will receive real-time notifications about application statuses, new internship postings, and messages, keeping them engaged and informed.

**Feedback Mechanisms:** Employers will be able to provide structured feedback on interns, and students will have the opportunity to evaluate their internship experiences. This continuous feedback loop will enhance the quality of internships and support the professional growth of students.



**\*Administrative and Analytical Tools:**

Employer Dashboards: Employers will have access to dashboards that provide insights into application metrics, intern performance, and other relevant data. This will help companies make informed decisions and improve their internship programs.

Student Dashboards: Students will have personalized dashboards where they can track their applications, receive feedback, and access resources tailored to their career development needs.

**\*Scalability and Security:**

Scalable Infrastructure: The platform will be built on a scalable infrastructure capable of handling increasing numbers of users and data without performance degradation.

Robust Security Measures: Advanced security protocols will be implemented to protect user data and ensure privacy, addressing one of the key concerns in online platforms.

#### IV. METHODOLOGY

**System Development Life Cycle:**

The project requires meticulous planning, robust security, and reliability. To achieve these goals, we will employ the Scrum methodology to develop the internship portal. Scrum is an ideal choice for this project due to its emphasis on frequent analysis, iterative development, and adaptability to feedback. Scrum is a framework for effective collaboration among teams working on complex products. It is a type of agile technology that involves a set of meetings, roles, and tools to help teams manage and structure their workload efficiently. Scrum is designed to handle iterative and incremental processes, making it highly adaptable, fast, flexible, and effective. The primary objective of Scrum is to deliver value to the customer throughout the development process by creating an environment characterized by transparency in communication, collective responsibility, and continuous progress. The Scrum framework consists of several key elements: Scrum Team: A cross-functional team composed of a Product Owner, Development Team, and Scrum Master. Product Backlog: A prioritized list of features, requirements, and tasks that the team needs to complete. Sprint: A time-boxed iteration typically lasting two to four weeks, during which the team works to complete a set of tasks from the Product Backlog. Sprint Planning: A meeting where the team plans the work for the upcoming Sprint. Daily Scrum: A short daily meeting where the team discusses progress, identifies obstacles, and plans for the next 24 hours. Sprint Review: A meeting at the end of each Sprint where the team demonstrates the completed work to stakeholders and gathers feedback. Sprint Retrospective: A meeting where the team reflects on the past Sprint and identifies areas for improvement. By adopting the Scrum methodology, the internship portal development team will benefit from: Frequent feedback and adaptability: The team can quickly respond to changes in requirements or user feedback by adjusting the Product Backlog and prioritizing tasks accordingly. Improved collaboration and transparency: The Scrum framework encourages open communication, shared responsibility, and regular progress updates among team members. Incremental delivery: The team can deliver working software incrementally, allowing stakeholders to provide feedback and prioritize features throughout the development process. Increased productivity and efficiency: Scrum's structured approach to planning, execution, and reflection helps the team optimize their workflow and eliminate



Fig 4.1 System Development Life Cycle

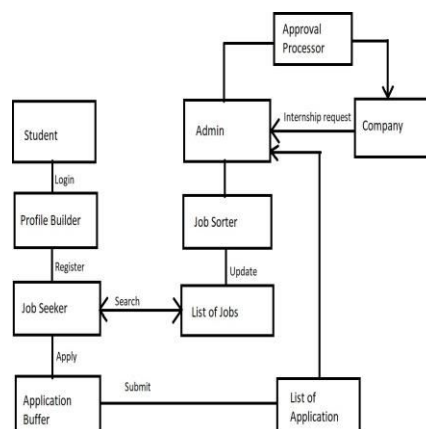


**Requirements:** The Scrum methodology is a flexible, fast, adaptable, and efficient agile framework. To identify the project's requirements, we will start by visiting different companies to understand their candidate hiring processes. We'll observe and record areas needing improvement and assess the systems from an outsider's viewpoint. The software requirements will be crafted to be extremely robust, making them more detailed and reliable than what is typically needed. Additionally, we will conduct interviews with HR managers and recruitment teams to gain deeper insights into the specific challenges they face during the internship recruitment process. This will help us understand the pain points from both the employers' and candidates' perspectives. We will also gather feedback from students who have previously applied for internships, to learn about their experiences and identify any common issues they encountered. Our requirement gathering will involve creating detailed user personas and use cases to cover all potential scenarios. This will ensure that the system addresses the needs of diverse user groups effectively. We will also benchmark our findings against existing internship portals to identify best practices and innovative features that can be incorporated into our system. The software requirements will be documented in a comprehensive requirements specification, outlining functional and non-functional requirements, user interface design guidelines, security protocols, and performance metrics. This detailed and thorough approach will ensure that the final product is not only reliable and secure but also user-friendly and capable of handling high volumes of data and seamlessly. Building an internship portal using the MERN stack and Scrum methodology involves setting up the project with MongoDB for the database, ExpressJS for the backend API, ReactJS for the user interface, and NodeJS as the runtime environment. The Scrum framework is then applied, with the team defining the product vision and user stories to create a

prioritized product backlog. The development team is organized into a Scrum structure with a Product Owner, Scrum Master, and developers. The project is then executed in short Sprints, with the team holding planning meetings, conducting daily standups, and reviewing progress at the end of each Sprint. Continuous integration and testing are also critical, using CI/CD pipelines to build, test, and deploy the MERN application. By combining the rapid web development capabilities of the MERN stack with the iterative, adaptive nature of Scrum, teams can efficiently build and deploy an internship portal that meets evolving user needs.



## V. SYSTEM ARCHITECTURE



The system architecture of the internship portal project is intended to effectively oversee and optimize the entire process of internship applications, tracking, and communication between universities, businesses, and students. Typically, the architecture is built on a multi-tier structure that consists of data, application, and presentation layers. Students can explore internship options, submit applications, and monitor their progress through the user-friendly online interface provided by the presentation layer. Businesses can list internship openings, evaluate applications, and



get in touch with possible interns. Business logic, user authentication, and data processing are handled by the application layer, which is often constructed using a stable backend framework like Django, Flask, or Node.js. Additionally, it has APIs for interacting with outside services, such as email and alert systems. An RDBMS, or relational database management system, is part of the data layer.

The multi-tier architecture offers several advantages:

**Separation of Concerns:** By dividing the system into distinct layers, each with its own responsibilities, the architecture promotes modularity and makes it easier to maintain and update individual components without affecting the entire system.

**Scalability:** The architecture allows for the independent scaling of each layer based on specific resource requirements, enabling the system to handle increasing user loads and data volumes efficiently.

**Security:** The application layer serves as a gatekeeper, handling authentication, authorization, and input validation, which helps protect the system from potential security threats and data breaches.

**Flexibility:** The modular design of the architecture makes it adaptable to changing requirements and allows for the integration of new technologies or services as needed.

**Performance:** By optimizing the flow of data and processing between layers, the architecture can improve overall system performance and responsiveness.

To ensure the reliability and robustness of the internship portal, the system architecture should also incorporate features such as:

**Redundancy:** Implementing redundant components and failover mechanisms to minimize downtime and ensure high availability.

**Monitoring and Logging:** Establishing comprehensive monitoring and logging systems to track system health, detect anomalies, and facilitate troubleshooting.

**Security Best Practices:** Adhering to industry-standard security practices, such as encryption, access control, and regular security audits, to protect sensitive user data and prevent unauthorized access.

By adopting a well-designed, multi-tier system architecture and incorporating best practices for reliability and security, the internship portal project can provide a stable, scalable, and secure platform for connecting students with valuable internship opportunities.

## **VI. CONCLUSION**

In summary, the internship portal project offers a comprehensive solution to connect employers seeking new hires with students wanting valuable work experience. The technology greatly improves the efficacy and efficiency of the internship process by offering a streamlined platform for handling applications, promoting communication, and monitoring internship progress.

Scalability, security, and dependability are guaranteed by the well-designed architecture, which takes advantage of contemporary technology and industry best practices in software development to meet the demands of a wide range of users. The multi-tier structure, consisting of data, application, and presentation layers, ensures separation of concerns, flexibility, and high performance.

By incorporating features such as redundancy, monitoring, and robust security measures, the system architecture provides a reliable and secure platform for the internship portal. This not only protects sensitive user data but also ensures the overall stability and availability of the system.

The internship portal project benefits both academic institutions and businesses. For academic institutions, the platform streamlines administrative tasks related to internship management, allowing them to focus on providing quality



educational experiences. For companies, the portal empowers them to efficiently connect with a diverse pool of talented students, build lasting professional relationships, and advance their own organizational goals.

By leveraging contemporary technology and industry best practices, the internship portal project offers a comprehensive solution that simplifies the internship process, enhances communication and collaboration, and ultimately supports the professional development of students and the growth of businesses.

#### REFERENCES

1. International Conference on Innovation in Engineering and Vocational Education (ICIEVE), 2017, A Juhana, A G Abdullah, M Somantri, D Zakaria, N Amelia, W Arasid.
2. "Development of Internship Monitoring and Supervising Web-Based System," IEEE, 2017.  
Martin Kleppmann's book "Designing Data-Intensive Applications": A thorough overview of developing scalable and maintainable data-intensive applications is given in this book, which is essential for any portal managing a large volume of user interactions and data storage.
3. "Microservices Patterns: With examples in Java" is a useful resource for comprehending the deployment and architecture of microservices, which are useful for creating scalable and adaptable systems.
4. For understanding different frameworks and their suitability for building a portal.
5. "Scalable Web Architectures: A Technology Primer" by Theo Schlossnagle: Insights into building scalable web architectures.





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