

Internship Portals: A Systematic Review of Current Platforms and Future Directions

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ABSTRACT

This review's main contribution is the identification of research gaps and new trends, such as virtual internship models, secure verification frameworks, and AI-driven recommendation systems. By giving students, employers, and educational institutions a common digital platform, internship portals are crucial in bridging the gap between academic learning and real world industry experience. Online internship platforms have received a lot of attention lately due to the growing need for remote internship opportunities and skill-based employability. The functionality, efficacy, and limitations of online internship portals are the main topics of this paper's systematic review of the literature. The review examines research papers from academic databases like IEEE Xplore, Scopus, and Google Scholar that were published between 2020 and 2024. This review offers a comprehensive analysis of platform features, security and verification issues, and the function of intelligent matching mechanisms, in contrast to previous surveys that primarily concentrate on usability or employability outcomes. Common drawbacks identified by the study include limited integration with academic institutions, inadequate verification of internship postings, a lack of personalized recommendations, and data privacy issues.

Keywords: Internship portals, systematic review, online internships, employability, AI-based recommendations, virtual internships.

INTRODUCTION

Internships are essential for connecting academic understanding with practical work experience. Historically advertisements, campus placement drives, or personal connections were used to find internships. But these approaches frequently lacked scalability, accessibility, and efficiency. These issues are addressed by the rise of online internship portals, which offer centralized platforms for employers to effectively handle applications and for students to

peruse, apply, and track opportunities. The internship ecosystem has changed as a result of the emergence of digital technologies, such as Indeed, LinkedIn, and Internshala, which provide automated matching, verification, and analytics to enhance placement results.

Portals for online internships offer both employers and students a controlled and convenient setting. Typical features of these platforms include skill-based job matching, resume uploading, profile creation, and real-time application tracking. They provide employers with performance analytics, automated communication, and candidate shortlisting tools. In addition to streamlining the hiring process, these systems guarantee openness and equal opportunity for candidates from a variety of geographic areas. The pandemic boosted the use of online portals for end-to-end internship management and expedited the development of remote and virtual internship formats. Numerous recent studies look at trainee outcomes, portal usability, and the incorporation of AI into applicant tracking and candidate matching.

Online internship portals do, however, have some drawbacks in spite of these benefits. Their efficacy may be hampered by problems like data privacy, fraudulent postings, a lack of verification, and unequal access to technology. To get around these restrictions, cooperation with validated institutions, user authentication, and

ongoing monitoring are crucial. All things considered, these platforms are a big step towards workforce readiness and digital transformation in higher education, supporting a productive and welcoming internship ecosystem.

LITERATURE SURVEY

Employability Prediction: A Survey of Current Approaches, Research Challenges and Applications^[1]

This paper reviews various techniques for predicting a student's employability based on academic records, skills, and background information. The authors explain how machine learning methods can help with career planning by analyzing student data. The study points out several issues, including limited data availability, privacy concerns, and challenges in clearly explaining prediction results. While the survey is useful for understanding employability assessment, it does not address how these prediction techniques can be used within an online internship portal. This shows a need for more research on combining employability prediction with internship management systems.

Closing the Doors of Opportunity: A Field Theoretic Analysis of the Prevalence and Nature of Obstacles to College Internships^[2]

Hora et al. examine the structural and social barriers that limit student access to college internships using a field-theoretic perspective. The study identifies key obstacles such as unpaid internship models, limited professional networks, institutional restrictions, and socio-economic inequalities that hinder participation. The authors point out that these barriers disproportionately impact students from underrepresented backgrounds. While the study offers important insights into access and equity issues, it does not explore how digital internship portals or online platforms could help address these challenges. This leaves a gap in using technology to improve internship accessibility.

Exploring Online Internships During the COVID-19 Pandemic in 2020 and 2021: Results from a Multi-Site Case Study^[3]

Hora et al. study the use and effectiveness of online internships during the COVID-19 pandemic through a multi-site case study conducted between 2020 and 2021. The study finds that virtual internships allowed for continuity in experiential learning by providing flexibility and remote access when traditional internships were interrupted. It also points out better access for students who faced geographical and mobility limits. However, the research mainly looks at short-term changes and does not assess long-term results, platform design issues, or security and verification problems related to online internship systems.

Methods to Achieve Effective Web-Based Learning Management Modules: MyGJU versus Moodle^[4]

This study compares two popular web-based learning management systems to evaluate how well they support online education. The authors look at factors like usability, system performance, and user satisfaction. The results show that well-designed and structured digital platforms improve user engagement and system efficiency. Although the study does not directly focus on internships, its findings help in understanding how online internship portals should be designed for better usability, reliability, and scalability.

Student-Industry Matching for Internship Placement^[5]

This paper suggests an automated way to match students with suitable internship opportunities based on their skills, academic background, and industry needs. The study shows that automated matching systems can improve placement efficiency and cut down on manual work in allocating internships. However, the research does not discuss real-world deployment, verification of internship providers, or security measures, which are essential parts of a complete online internship portal.

A Machine-Learning-Based Approach to Support Academic Decision-Making at Higher Educational Institutions^[6]

This research presents a machine learning-based decision support system that assists students and academic institutions in making informed choices. The system analyzes academic data to provide recommendations for course selection and career planning. The study highlights how machine learning can enhance decision-making processes. However, it does not include internship opportunities or features for industry collaboration, limiting its usefulness for internship portals.

Internships Before and During COVID-19: Experiences and Perceptions of Undergraduate Interns and Supervisors^[7]

This study compares internship experiences before and during the COVID-19 pandemic using surveys. The authors report significant changes in internship structure, communication, and supervision due to the shift to online and hybrid formats. The findings offer valuable insights into how internships adapted to remote environments. However, the study does not assess the role of dedicated digital internship platforms in managing or supporting these changes.

The Practice of Online Internships^[8]

This work discusses the overall practice and implementation of online internships. The authors highlight benefits like flexibility, fewer geographical barriers, and broader access to opportunities. The study also mentions challenges, including limited interaction, difficulties in supervision, and assessment issues. While the discussion is useful for understanding online internships, it does not focus on the technical design, security, or verification features of online internship portals.

Remote Work and Satisfaction for Black Engineers and Computer Scientists^[9]

This paper examines how remote work impacts job satisfaction and professional experiences. The findings show that remote work offers flexibility and an improved work-life balance but can also lead to challenges like reduced engagement and social isolation. Although the study is not specific to internships, its results are applicable for understanding remote internship experiences. The research does not explore how online platforms can enhance or support remote work environments.

Catalysis in Modern Drug Discovery: Insights from a Graduate Student-Taught Undergraduate Course^[10]

This study focuses on a course-based learning approach that provides hands-on experience to undergraduate students. The authors highlight that structured practical exposure improves student understanding and skill development. While the study is unrelated to internships or online platforms, it reinforces the importance of experiential learning, which is a key goal of internship programs.

All Internships Are Not Created Equal: Job Design, Satisfaction, and Vocational Development in Paid and Unpaid Internships^[11]

This research looks at how internship structure, job design, and payment affect student satisfaction and career growth. The study finds that paid and well-structured internships provide better learning and professional outcomes. However, it does not discuss how online internship portals can help ensure quality, transparency, or standardization of internship opportunities.

Virtual Internships in Open and Distance Learning Contexts: Improving Access, Participation, and Success for Underrepresented Students^[12]

This paper examines the role of virtual internships in open and distance learning programs. The authors report that virtual internships enhance access and participation, especially for students from underrepresented or remote

backgrounds. Despite these advantages, the study does not address platform-level issues like security, verification of internship providers, or intelligent matching mechanisms. Summary of Literature Survey Overall, existing research mainly focuses on the benefits of internships, student experiences, and learning outcomes. Very few studies address comprehensive online internship portals that include usability, intelligent matching, security, and institutional collaboration. These gaps point to the need for further research on reliable, secure, and user-friendly internship portal systems.

The literature review is based on research papers collected from respected academic databases like IEEE Xplore, Scopus, and Google Scholar, published between 2020 and 2024. The reviewed studies are examined to understand key aspects of online internship platforms, including platform features, security and verification challenges, and smart matching mechanisms. Unlike earlier surveys that mainly focus on usability or job outcomes, this review offers a wider and more organized look at the technological and functional aspects of internship portals.

COMPARATIVE ANALYSIS OF EXISTING APPROACHES

Ref.	Focus Area	Approach	Key Limitation
[1]	Employability prediction	ML-based survey	Not integrated with internship portals
[2]	Internship access barriers	Field-theoretic analysis	No digital or portal-based solution
[3]	Online internships (COVID-19)	Case study	Short-term focus, no platform analysis
[4]	Web-based platforms	System comparison	Not internship-specific
[5]	Online internship models	Conceptual analysis	Lacks empirical validation
[6]	Remote work experience	Empirical study	Not specific to internships
[7]	Internship job design	Comparative analysis	No portal standardization
[8]	Virtual internships	Distance education study	Security and verification not addressed

IDENTIFIED RESEARCH GAPS

Based on the reviewed literature, the following research gaps are identified:

Lack of Intelligent Matching Mechanisms: Most internship portals use basic search and filtering techniques. They do not support AI-driven or skill-based matching between students and internship opportunities.

Limited Employability Analytics: Current systems do not track student skill development, internship outcomes, and career progression over time.

Absence of Standardized Evaluation Frameworks: There is no common way to evaluate internships in relation to outcome-based education (OBE) and academic performance metrics.

Poor Academic System Integration: Integration with systems like ERP and Learning Management Systems (LMS) is limited. This reduces coordination between academic institutions and internship platforms.

Security and Privacy Challenges: Many platforms do not provide enough security measures and fail to comply with data privacy standards. This raises concerns about data protection and user trust.

Weak Industry Engagement: Existing research shows limited ways to encourage active and ongoing participation from industry partners.

Inadequate Support for Flexible Internship Models:

There is not enough support for mobile access and remote or hybrid internship models. This limits scalability and real-world adoption.

DISCUSSION

The shift from traditional networking to digital platforms has made it easier to find internships, but it has also created new challenges. While sites like LinkedIn and Internshala have moved the process online, they mainly rely on basic search filters instead of smart, AI-based tools that truly recognize a student's skills.

One of the biggest issues we found is the "trust gap." Many students still worry about fake job postings or the safety of their personal data. Additionally, these platforms often feel disconnected from actual college systems, which makes it hard for schools to track whether an internship is helping a student learn what they need for their degree.

To address this, the next generation of portals needs to do more than just list jobs. They should use better verification methods, like blockchain, to prevent fraud and improved AI to match the right student to the right role. By making these platforms more secure and better connected to universities, we can ensure that every student has a fair chance at a high-quality internship.

CONCLUSION

Internship portals have revolutionized career development by bridging the gap between academic learning and professional experience. Platforms like LinkedIn and Internshala have made the process more efficient through automated matching and real-time tracking. However, challenges such as data privacy, fraudulent postings, and a lack of integration with university systems still need to be addressed. By adopting future technologies like blockchain for verification and AI for personalized recommendations, these platforms can better support student employability and industry-academia collaboration. Ultimately, as digital learning continues to grow, these portals will remain essential tools for matching talent with opportunity on a global scale.

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