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REDEFINING THE FUTURE OF TALENT ACQUISITION: THE GENESIS OF IMMERSIVE VR RESUMES THROUGH DESIGN THINKING

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Abstract:

The rapid evolution of virtual reality (VR) technology is poised to revolutionize the professional recruitment landscape, shifting the paradigm from the linearity and static nature of traditional resumes to immersive VR resumes. This article introduces a groundbreaking framework anchored in the Design Thinking process model, which offers a structured, user-centric approach to creating VR resumes on platforms like Spatial. Rooted in five stages-Empathise, Define, Ideate, Prototype, and Test-this methodology emphasizes the importance of user experience, iterative design, and context. By seamlessly integrating 'context' and 'form', the proposed strategy aids professionals in designing resonant and interactive resumes in a virtual space. The application of VR in Spatial offers features like customizable 3D environments, personalized avatars, and real-time collaborations, empowering candidates to craft compelling narratives of their professional journeys. Although industries like technology and design are predicted to be early adopters, the adoption of VR resumes might encounter initial resistance due to factors like a lack of standardization and concerns over inclusivity. However, with potential integrations on platforms like LinkedIn and the prospect of virtual job fairs, VR resumes have the potential to redefine engagement methods in recruitment. As the professional world grapples with this transformation, it's vital to strike a balance, ensuring that VR resumes complement rather than replace traditional methods, fostering a recruitment

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process that is technologically advanced yet deeply human-centric and inclusive.

Keywords:

Virtual Reality (VR), Spatial Platform, Design Thinking Process, Professional Recruitment, Immersive Resumes, User-Centric Approach, Technological Innovation In Networking

Introduction

The journey of professional representation has undergone significant evolution, transitioning from traditional paper-based resumes to digital mediums (Pan & Hamilton, 2018; Yang et al., 2018). This evolution marks a notable shift in how individuals present their skills and experiences. However, despite these advancements, both traditional and digital resumes are now facing challenges and limitations in the rapidly advancing technological landscape and evolving job market dynamics. This paper seeks to explore the potential of immersive Virtual Reality (VR) resumes as the next frontier in this evolution.

Traditional paper resumes, while once the standard, often fail to convey the full spectrum of a candidate's abilities and personality. Similarly, digital resumes, despite offering more flexibility in design and broader reach, still adhere to a somewhat linear and constrained narrative structure (Danyluk et al., 2022; Sukotjo et al., 2021). These limitations hinder the ability of job seekers to fully showcase their competencies and for employers to gauge the true potential of candidates.

The advent of immersive VR technology introduces a novel approach to addressing these challenges. VR resumes have the potential to transcend the limitations of traditional and digital formats by offering a more holistic and interactive representation of a candidate's professional profile (Davies et al., 2021). This paper conceptualizes VR resumes, emphasizing their capacity to revolutionize the presentation and perception of skills and experiences in the job market.

Yet, the transition to VR resumes is not without challenges. Technical accessibility, user adaptability, and market readiness to accept this new format are significant considerations that need to be addressed. This paper aims to explore these challenges while presenting the conceptual framework of VR resumes as a promising solution to the evolving needs of talent acquisition in the digital age (Danyluk et al., 2022; Sukotjo et al., 2021).

Building upon the conceptual exploration of VR resumes, this paper has a focused objective to conceptualize and propose a framework specifically for the development and utilization of VR resumes, with an emphasis on the application of Spatial as a pioneering tool in this venture. The aims of this paper are structured as follows:

- i. Assessing Current Resume Formats: We aim to critically understand the limitations and challenges inherent in traditional and digital resumes. This involves analyzing the constraints of these formats in accurately representing the full spectrum of a candidate's professional and personal capabilities.
- ii. Exploring the Advantages of VR: Highlighting the potential benefits of adopting VR technology in professional representation. This includes assessing how VR can offer a



more immersive and interactive experience, thereby providing a richer and more engaging portrayal of a candidate's skills and experiences.

- iii. Guidance on Utilizing Spatial: Offering a comprehensive guide on leveraging Spatial for creating VR resumes. This will encompass practical advice and strategies on how professionals can utilize this platform to craft impactful and memorable VR resumes that stand out in the job market.
- iv. Industry Reception and Impact: Gauging the potential reception of such a revolutionary shift within the industry. This involves exploring the readiness and openness of the professional networking and recruitment sectors to embrace VR technology in talent acquisition and career development.

In pursuing these aims, the paper seeks to provide valuable insights into how VR technology, particularly through platforms like Spatial, can innovate the domain of professional representation and recruitment, marking a significant shift in how talent is showcased and discovered.

It is crucial to note that this paper adopts a conceptual approach, distinct from empirical research methodologies. Our focus lies in developing a theoretical framework and exploring new ideas based on existing knowledge and literature, rather than collecting and analyzing new empirical data. This conceptual approach is integral to our exploration of VR resumes. We synthesize existing literature on resume development, VR technology, and digital transformation in professional representation to build our theoretical proposition. The paper aims to broaden the academic and practical understanding of VR's potential in professional settings, offering a new perspective on future applications. Given this approach, readers will find that traditional 'Methodology and Findings' sections, common in empirical studies, are not present. Instead, the paper traverses the realms of theoretical analysis and conceptual development, laying the groundwork for future empirical research in this emerging field.

Literature Review

In exploring the evolution and potential of VR resumés, it's vital to first understand the historical context, technological developments, and shifts in professional representation paradigms. This literature review thus delves into three primary areas: the progression of resumés from paper to digital, the emergence and growth of virtual reality (VR) in various sectors, and the capabilities and functionalities of Spatial as a pioneering VR platform.

Evolution of Resumes: From Paper to Pixels

Historically, resumes began as paper documents, serving as a snapshot of one's qualifications and experiences. While easy to distribute and universally accepted, they offered limited scope for personalization or dynamic content representation (Pettersson, 2017). However, with the rise of digital resumes in the late 20th and early 21st centuries, professionals have witnessed a revolution in the way they network and showcase their experiences (Guraya et al., 2021). Platforms such as LinkedIn have played a significant role in this transformation, providing a digital format that allows for hyperlinks, multimedia inclusions, and a greater depth of information. These features have made digital resumes more interactive and engaging compared to their paper counterparts.

Digital resumes have opened up new possibilities for personalization and customization. With the ability to include hyperlinks, professionals can direct potential employers or collaborators



to additional resources such as portfolios, websites, or online projects that showcase their work (Guraya et al., 2021). This allows for a more comprehensive representation of one's skills and experiences. The inclusion of multimedia elements such as images, videos, or infographics further enhances the visual appeal and storytelling potential of digital resumes (Moreau et al., 2018). These dynamic elements can provide a richer and more engaging experience for the reader, allowing them to gain a deeper understanding of the candidate's capabilities.

Moreover, digital resumes offer a greater depth of information compared to paper resumes. Professionals can provide detailed descriptions of their roles, responsibilities, and achievements, providing a more comprehensive overview of their professional journey (Huang et al., 2019). This depth of information allows employers or collaborators to gain a more nuanced understanding of a candidate's skills and experiences, enabling them to make more informed decisions.

The shift to digital resumes has also brought about changes in the way professionals network and connect with potential opportunities. Platforms like LinkedIn have created a digital ecosystem where professionals can build their online presence, connect with others in their field, and showcase their experiences to a wider audience (Guraya et al., 2021). This has expanded the reach and visibility of professionals, enabling them to network and explore career opportunities in a more efficient and effective manner.

Virtual Reality: Beyond Gaming and Entertainment

The emergence of Virtual Reality (VR) has promised a fusion of the real and the digital in immersive environments since its inception in the 1960s. While its initial applications were primarily in gaming and entertainment, the 21st century has witnessed the expansion of VR into various fields such as education, healthcare, and real estate.

In professional settings, recent literature has highlighted the potential of VR in corporate training, team-building exercises, and remote collaborations. VR has been recognized as a versatile tool that can enhance learning experiences and facilitate skill development in various industries (Kyaw et al., 2019). For example, in the healthcare sector, VR has been used for training healthcare professionals, allowing them to practice procedures in a realistic and controlled virtual environment (Moro et al., 2017). This immersive training approach has shown promising results in improving knowledge acquisition and skills development.

Moreover, the concept of virtual offices and meeting spaces has gained traction, demonstrating the versatility of VR in professional settings. Virtual offices provide a simulated workspace where individuals can collaborate, communicate, and conduct meetings remotely, transcending geographical boundaries (Parong & Mayer, 2018). This technology has the potential to revolutionize the way professionals work and interact, offering a more immersive and engaging experience compared to traditional video conferencing tools.

The effectiveness of VR in professional settings has been supported by research. A systematic review and meta-analysis evaluating the effectiveness of VR in health professions education found that VR interventions were effective in improving knowledge, cognitive skills, attitudes, and satisfaction among health professionals (Kyaw et al., 2019). Another meta-analysis focused on the use of VR-based interventions in cancer-related symptom management and



demonstrated the efficacy of VR in improving health-related outcomes in patients with cancer (Zeng et al., 2019).

In the field of education, VR has been explored as an educational tool to enhance learning experiences. Studies have shown that VR can stimulate emotions, improve engagement, and provide experiential learning opportunities in various subjects, including human anatomy and science education (Izard et al., 2017; Kriklenko et al., 2022). The immersive nature of VR allows learners to interact with virtual environments and objects, enhancing their understanding and retention of complex concepts.

The adoption of VR in professional settings is not without challenges. Obstacles such as limited resources, infrastructure requirements, and the high cost of software can hinder the widespread implementation of VR-based solutions. However, as technology advances and becomes more accessible, these barriers are gradually being addressed.

Spatial: A New Frontier in Virtual Collaboration

Spatial, as a forerunner in the realm of multi-user Virtual Reality (VR), has carved a unique niche in the collaborative digital space. What sets it apart from the gamut of traditional video conferencing tools is its innate ability to leverage the immersive capabilities of VR to bolster communication and collaboration. As Jensen & Konradsen (2017) keenly observe, while many tools offer platforms for visual interaction, few manage to bridge the experiential gap between participants in the way that Spatial has achieved.

Beyond merely being a tool for virtual meetings, Spatial's versatility extends to a spectrum of applications. From hosting design workshops that allow real-time tweaking and adjustments, showcasing product presentations that give a tangible sense of the product in a virtual space, to even facilitating educational sessions that go beyond the limits of a traditional classroom, Spatial covers a broad swath of interactive experiences (Cipresso et al., 2018). Such multifaceted applications underscore the platform's adaptability and relevance in the ever-evolving digital landscape.

Perhaps one of the most standout features of Spatial is its adeptness at integrating 3D objects into the virtual environment. However, this is not its sole forte. The platform seamlessly meshes multimedia presentations, fostering an ecosystem where dynamic interactions are not just possible but are a norm. Such capabilities position Spatial as a prime candidate for the conception and development of VR resumes. In an age where showcasing one's skills and experiences goes beyond mere words on paper, the ability to integrate multimedia elements into a VR environment presents an unprecedented opportunity for job seekers to paint a vivid, holistic, and immersive picture of their professional journey.

Synthesis and Gap Identification

The intersection of resume development and virtual reality (VR) is an area that has received limited attention in the literature. While there is a wealth of research on resume development and the growth of VR as separate topics, there is a noticeable gap when it comes to exploring the potential of VR in revolutionizing professional representation. Few studies, if any, have specifically investigated how VR can be harnessed to create immersive VR resumes. Therefore, there is a need to fill this void and explore the possibilities offered by VR platforms like Spatial in developing VR resumes.



One possible reference that can contribute to this discussion is the systematic review and metaanalysis by (Kyaw et al., 2019). Although the focus of this study is on virtual reality in health professions education, it provides insights into the use of VR as a pedagogical tool and the potential benefits of immersive experiences. This reference can be used to support the argument that VR has the potential to transform traditional methods of professional representation, such as resumes.

Another relevant reference is the systematic literature review by (Hamilton et al., 2020), which explores the use of immersive VR as a pedagogical tool in education. While the focus of this study is on learning outcomes and experimental design, it provides valuable insights into the effectiveness of VR in creating immersive experiences. This reference can be used to highlight the potential of VR in creating engaging and interactive VR resumes.

Lie et al. (2022) present a protocol for a scoping review on the implementation of VR in health professional higher education. Although the study is still ongoing, it can provide insights into the current state of VR implementation in educational settings. This reference can be used to discuss the potential of VR in transforming traditional educational practices and how this can be applied to the development of VR resumes.

Neumann et al. (2017) conducted a systematic review of the application of interactive VR to sport. While the focus of this study is on sports applications, it provides insights into the use of interactive VR experiences and the potential for immersive experiences in various domains. This reference can be used to support the argument that VR can offer unique and engaging experiences in the context of VR resumes.

Other references, such as (Song et al., 2021), (Blair et al., 2021), and (Pottle, 2019), can provide insights into the use of VR in different contexts, such as health information sources, medical education, and the transformation of medical education. These references can contribute to the discussion by highlighting the potential of VR in various fields and how it can be applied to the development of VR resumes.

In summation, the literature currently lacks research on the intersection of resume development and VR. However, there are relevant studies that explore the use of VR in education, health professions, sports, and other domains. These studies provide valuable insights into the potential of VR in creating immersive experiences and can be used to support the argument for the development of VR resumes. By analysing these sources, it is clear that there is a requirement to address the lack of detail in the existing literature and investigate the possibilities of VR platforms such as Spatial in transforming professional representation by creating immersive VR resumes.

Proposed Framework

In the context of this conceptual paper, it is essential to delineate the proposed framework for immersive VR resumes from existing frameworks in resume development. While traditional and digital resume formats have laid a foundational groundwork in professional representation, our proposal introduces a novel conceptualization that diverges significantly from these models by integrating the unique capabilities of Virtual Reality (VR) technology.



Existing Frameworks in Resume Development: Traditional resume frameworks focus primarily on a linear presentation of information, emphasizing chronological work history and educational background. With the advent of digital formats, these frameworks evolved to include electronic submission and design flexibility, yet they still largely adhere to a two-dimensional narrative structure.

Proposed Conceptual Framework for VR Resumes: The proposed framework for VR resumes represents a paradigm shift that are adopting from Design Thinking Process where design thinking is a powerful framework for formulating creative and innovative solutions to social problems and integrating it into social innovation processes can lead to a process-based framework for problem solving and social innovation (Oh, 2014). It transcends the linear and flat presentation of information by offering a three-dimensional, interactive experience. This VR-based framework allows candidates to present their skills, experiences, and personalities in a more dynamic and engaging manner. Unlike traditional formats, a VR resume can include interactive simulations, virtual portfolios, and other immersive elements that offer a richer depiction of a candidate's capabilities.

Building Upon Existing Models: While this conceptualization is distinct, it does not discard the valuable aspects of existing frameworks. Instead, it builds upon them by enhancing the depth and interactivity of the information presented. The VR resume framework aims to address the limitations of current models, such as the inability to effectively showcase soft skills, personality traits, and the full scope of a candidate's professional persona.

The proposed VR resume framework is not merely an extension of existing practices but rather a reimagining of professional representation. It leverages the immersive and interactive potential of VR technology to offer a more holistic and engaging portrayal of job candidates, setting the stage for a transformative shift in talent acquisition.

The Design Thinking process model is a user-centric approach to problem-solving and innovation, emphasizing empathy, collaboration, and iteration. Originally stemming from the realm of product design, its principles have found applications in various sectors, including digital platforms and interactive environments like VR. The model consists of five interconnected stages: Empathise, Define, Ideate, Prototype, and Test. Nguyên et al. (2021) mentioned the five-step design thinking model created by the Hasso Plattner Institute of Design at Stanford University, also known as the d.school.





Figure 1 The Mapping VR Resume Development In Design Thinking Process

Note: The stages in the design thinking process. Adapted from The Design Thinking Process – How does it work?, by Karl, S., 2020, https://www.maqe.com/insight/the-design-thinking-process-how-does-it-work/. Copyright 202] by MAQE Bangkok Co., Ltd.

In Design Thinking, 'context' pertains to understanding the broader circumstances surrounding a problem, encompassing the cultural, social, and technological aspects, and is crucial during the "Empathise" and "Define" stages. Through empathizing, designers deeply engage with users' environments, capturing their holistic experiences, which are then distilled into actionable challenges during the Define stage. Using the Spatial app's VR resume as an illustration, context involves grasping the existing recruitment realm and the nuances of VR. Conversely, 'form' is the tangible outcome from the ideation and prototyping phases, transforming abstract ideas into physical or digital prototypes. These prototypes, developed in the "Prototype" stage and refined in the "Test" phase, aim for an optimal user experience. Relating to the VR resume on the Spatial app, the form would encompass the actual design and functionality of the resume, the interface, the user interactions, and the overall aesthetic and usability of the application.

Table 1: Guidelines for Developing VR Resumes in Spatial: Integrating Design	
Thinking Principles	

Design Thinking Process	VR Resume Guidelines in Spatial
 EMPATHISE Dive deep into the end-users' environment to understand their needs, desires, and experiences. Engage directly with users to capture their holistic experiences. 	 Understanding Spatial's Features Immersive Environments: Customize 3D spaces. 3D Avatars: Create personalized avatars. Interactive Media Integration: Add photos, videos, 3D models. Real-time Collaboration: Allow multi-user access for interactive VR resume walkthroughs.
2. DEFINE	2. Designing the VR Resume Structure
• Articulate clear and actionable	• Objective: Ensure logical narrative flow.
problem statements based on	• Introductory Space: Welcoming environment.
insights gathered. Narrow down	• Career Timeline: Represent professional journey.

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observations to define specific challenges.	• Interactive Exhibits: Rooms showcasing key achievements.
 3. IDEATE Encourage brainstorming and conceptualization of potential solutions. Collaborate with a diverse team to generate a wide array of ideas. 	 3. Incorporating Multimedia Objective: Make achievements interactive. Videos, 3D Models, Interactive Charts.
 4. PROTOTYPE Turn ideas into tangible prototypes. Experiment with different iterations to understand potential strengths and weaknesses. 	 4. Personalizing Your Space Objective: Personalize VR space. Aesthetic Choices: Align with personal brand. Avatar Design: Professional virtual representation. Optional Background Music for immersion.
 5. TEST Engage real users to validate and refine the design based on feedback. Ensure the solution is user-centric and meets target audience needs. 	 5. Testing & Refinement Objective: Seamless VR resumé experience. User Testing: Gather feedback. Technical Checks: Ensure smooth multimedia interactions. Content Review: Check for errors and misinformation.

This study presents a detailed guideline for crafting impactful VR resumes using Spatial. These guidelines are delineated in Table 1, harmonized with the Design Thinking process.

A VR resume in Spatial isn't just a showcase of professional achievements but a demonstration of forward-thinking, adaptability, and a willingness to leverage cutting-edge technology. By thoughtfully designing and leveraging the rich features of Spatial, professionals can make lasting impressions, setting themselves apart in the competitive job market.

Sample VR Resume Development Using Design Thinking Process

The following table outlines a comprehensive guide to creating a VR resume utilizing Spatial's innovative platform, which is geared towards enhancing the user's ability to showcase their professional journey in a dynamic and interactive environment. The guide is structured around the Design Thinking Process, ensuring that the end result is not only technologically advanced but also user-centric and practical. From understanding the features of Spatial to sharing and collaboration with potential employers, each step is meticulously detailed, complete with illustrative figures, to assist users in constructing a VR resume that stands out. Whether it's customizing 3D spaces, personalizing avatars, integrating interactive media, or collaborating in real-time, this guide ensures that every aspect of the VR resume is crafted to perfection.



Design Thinking Process VR Resume Guidelines in Spatial EMPATHISE Understanding Spatial's Features To create the VR resume, users need to understand the following steps: 1. The first thing a user needs to do is create an account at [https://www.spatial.io/]. 2. Next, users need to create their own avatar. 3. Users should then personalize their space using multimedia integration. 4. The user will be the admin and can invite team members for real-time collaboration. • Immersive Environments: Customize 3D spaces. A virtual space that can be joined with multiple users. Spaces can be created from Templates through the main app, or from Unity. Users able to create their own space by using other 3D Environment development software such as Unity or select for the space template from the "Collectibles" section or free template of customizing spaces [see Figure 2]. Image: New Space New Space Science S	Table 2: Sample	VR Resume Development Using Design Thinking Process
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• 3D Avatars: Create personalized avatars.		• 3D Avatars: Create personalized avatars.
		r
This component enables the definition of a custom avatar for use		This component enables the definition of a custom avatar for use
in Spatial. In a VR resume, you can customize the avatar to enhance		-
interactions [see Figure 3]		





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	Figure 5: Real-Time Collaboration
	The VR resume can be updated in real time, responding instantly
	to user movements [see Figure 5].
DEFINE	Designing the VR Resume Structure
	• Objective: Ensure a logical narrative flow.
	 When designing the VR resume, users must develop a
	structured approach to maintain the resume's formality.
	• Introductory Space: Create a welcoming environment, as depicted in [See Figure 6], to foster greater interaction and
	engagement with visitors.
	SHAZWAN
	Figure 6: Example of Welcoming Environment
	• Career Timeline: Represent the professional journey. This can be achieved by using a combination of photos, videos, and 3D
	models [see Figure 7].



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	Figure 7: Example of Career Timeline
	• Interactive Exhibits: Rooms showcasing key achievements. Users can divide the room by highlighting the achievement accordingly.
IDEATE	Incorporating Multimedia
	 Objective: Enrich the VR resume with interactive content to illustrate the user's professional achievements engagingly. Action Steps: Select relevant multimedia elements: photos, videos, 3D models, and documents. Embed these elements within the VR space to complement the career narrative. Considerations: Visual Storytelling: Use images and videos to highlight career milestones. Interactive Models: Integrate 3D models for a hands-on experience of the user's work. Informative Documents: Attach documents to provide in-depth insights into achievements. Expected Outcome: A multimedia-rich VR resume that offers an immersive exploration of the user's professional journey.
PROTOTYPE	Personalizing Your Space
	 Objective: Personalize the VR resume to enhance user engagement and promote visibility to potential employers. Users may upload the content for their resume [see Figure 8, Figure 9, Figure 10, Figure 11]. Spatial supports a wide variety of file formats, including: 3D: glb, gltf, fbx,obj, dae, pcd Videos: mp4, gifs, mkv, mov, avi, wmv, webm Images: png, jpeg, tiff Documents: .docx, .pptx, .xlsx, .pdf





Figure 8: Example of Area in VR Resume Space That Consists of Lounge Area with 3D Objects



Figure 9: Example of Area in VR Resume Space That Specifically Personalize With Elements of Graphics and 3D Objects





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TEST	 Testing & Refinement Users need to the test VR resume with others to gather comments. Technical check is likely to ensure the smooth multimedia interactions. Users need to check for the structure and content of the VR resumes.

The journey through the Design Thinking stages for creating a VR resume in Spatial reflects a harmonious blend of innovative technology with user-centric design principles. By meticulously understanding and utilizing Spatial's features, from 3D environments to real-time collaboration, users can craft a multi-dimensional professional profile that transcends the traditional paper resume. The process culminates in a prototype that is both reflective of the individual's career and inviting to potential collaborators. Sharing the VR resume becomes a pivotal moment, extending an interactive, exploratory experience to potential employers. This guide not only outlines the steps to create such a cutting-edge representation but also exemplifies the transformative power of VR in professional storytelling, ensuring that the user's professional journey is not just told, but is experienced.

Potential Industry Reception

Shifting from traditional resumes to VR resumes, particularly through platforms like Spatial, has the potential to disrupt the professional networking and recruitment landscape. While some industries may initially be sceptical and reluctant to embrace this shift (Laver et al., 2017), sectors like technology, gaming, design, and other creative fields are likely to be the first to adopt VR resumes. These industries recognize the innovative potential of VR resumes to highlight skills and demonstrate adaptability, setting candidates apart in the recruitment process (Chuan et al., 2023).

One advantage of VR resumes is the level of engagement and immersion they offer. HR professionals can gain a richer understanding of a candidate's abilities, personal brand, and *Copyright* © *GLOBAL ACADEMIC EXCELLENCE (M) SDN BHD - All rights reserved*



portfolio through interactive experiences. This feature is particularly valuable for roles that benefit from tangible showcases, such as design or architecture (Lie et al., 2022).

However, challenges may arise from a lack of standardization. With VR resumes varying widely in style and function, recruiters may find them challenging to navigate (Greenhough et al., 2021). Additionally, VR resumes may require more time from recruiters compared to scanning traditional resumes.

The evolution in this direction may also lead to platforms like LinkedIn integrating VR features, enabling virtual job fairs and more dynamic recruitment environments. However, it is important to address inclusivity concerns. Relying heavily on VR could inadvertently exclude candidates who lack access to the necessary technology (Mazrur et al., 2023). On the other hand, VR resumes could provide a vibrant platform for candidates with unique skills and experiences to shine.

Training will be crucial for HR departments to navigate VR resumes effectively, and candidates may seek resources to craft compelling VR presentations. Over time, a hybrid approach may emerge, where candidates offer both traditional and VR resumes to adapt to employer preferences. Eventually, as VR becomes more ubiquitous, VR resumes may become standard in specific sectors.

Conclusion

In concluding this exploration of VR resumes with a focus on the application of Spatial, we reflect upon the objectives set forth at the outset of this paper. We have successfully conceptualized and proposed a novel framework for VR resumes, thereby addressing the inherent limitations of traditional and digital resume formats. Our study:

- i. Assessed Current Resume Formats: We critically analyzed the constraints of traditional and digital resumes, revealing their inadequacies in fully showcasing a candidate's professional and personal capabilities.
- ii. Explored the Advantages of VR in Professional Representation: The paper highlighted the potential of VR technology in offering immersive and interactive experiences, providing a more engaging and comprehensive portrayal of candidates' skills and experiences.
- iii. Provided Guidance on Utilizing Spatial: We offered actionable insights on leveraging Spatial for creating impactful VR resumes, underscoring its potential in enhancing career representation.
- iv. Gauged Industry Reception and Impact: The study explored the potential reception and impact of VR resumes within the industry, indicating a transformative shift in professional networking and recruitment.

While this paper has made strides in conceptualizing the use of VR in resumes, it acknowledges certain limitations. The study is primarily theoretical, lacking empirical data to validate the proposed framework's practical application. Additionally, the focus on Spatial as a specific platform may not encompass the broader spectrum of VR technologies available or in development.

Future research should aim to empirically test the proposed VR resume framework, evaluating its practicality, user experience, and effectiveness in real-world recruitment scenarios. Studies could also explore a wider range of VR platforms and technologies to assess their applicability



in diverse professional contexts. Additionally, further research is needed to address issues of accessibility and inclusiveness, ensuring that VR resumes are viable and beneficial for a broad spectrum of users. Besides, any potential areas for integration with any recruitment platforms enables the smooth merging of VR resumés with a recruitment platform, streamlining the hiring process by allowing the review of applications and communication with applicants for businesses.

In summary, this paper has set the foundation for a significant paradigm shift in how professional qualifications are represented and perceived. The integration of VR technology in resumes, as proposed and conceptualized in this study, opens new horizons for innovation in talent acquisition. However, the journey is just beginning, and continued research and development are essential for realizing the full potential of this promising technology.

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References

- Blair, C., Walsh, C., & Best, P. (2021). Immersive 360° videos in health and social care education: a scoping review. BMC Medical Education, 21(1). https://doi.org/10.1186/s12909-021-03013-y
- Chuan, A., Qian, J., Bogdanovych, A., Kumar, A. H., McKendrick, M., & McLeod, G. (2023). Design and validation of a virtual reality trainer for ultrasound-guided regional anaesthesia. Anaesthesia, 78(6), 739-746. https://doi.org/10.1111/anae.16015
- Cipresso, P., Giglioli, I. A. C., Raya, M. A., & Riva, G. (2018). The past, present, and future of virtual and augmented reality research: a network and cluster analysis of the literature. Frontiers in Psychology, 9. https://doi.org/10.3389/fpsyg.2018.02086
- Danyluk, K., Ulusoy, T., Wei, W., & Willett, W. (2022). Touch and beyond: comparing physical and virtual reality visualizations. IEEE Transactions on Visualization and Computer Graphics, 28(4), 1930-1940. https://doi.org/10.1109/tvcg.2020.3023336
- Davies, H., Sundin, D., Robinson, S., & Jacob, É. (2021). Does participation in extended immersive ward-based simulation improve the preparedness of undergraduate bachelor's degree nursing students to be ready for clinical practice as a registered nurse? an integrative literature review. Journal of Clinical Nursing, 30(19-20), 2897-2911. https://doi.org/10.1111/jocn.15796
- Greenhough, B., Barrett, S., Towlson, C., & Abt, G. (2021). Perceptions of professional soccer coaches, support staff and players toward virtual reality and the factors that modify their intention to use it. Plos One, 16(12), e0261378. https://doi.org/10.1371/journal.pone.0261378
- Guraya, S. S., Guraya, S. Y., & Yusoff, M. S. B. (2021). Preserving professional identities, behaviors, and values in digital professionalism using social networking sites; a systematic review. BMC Medical Education, 21(1). https://doi.org/10.1186/s12909-021-02802-9
- Hamilton, D. E., McKechnie, J., Edgerton, E., & Wilson, C. (2020). Immersive virtual reality as a pedagogical tool in education: a systematic literature review of quantitative learning outcomes and experimental design. Journal of Computers in Education, 8(1), 1-32. https://doi.org/10.1007/s40692-020-00169-2



- Huang, Z., Semwal, M., Lee, S. Y., Tee, M., Ong, W., Tan, W. S., ... & Car, L. T. (2019). Digital health professions education on diabetes management: systematic review by the digital health education collaboration. Journal of Medical Internet Research, 21(2), e12997. https://doi.org/10.2196/12997
- Izard, S. G., Juanes, J. A., & Ruisoto, P. (2017). Virtual reality educational tool for human anatomy. Journal of Medical Systems, 41(5). https://doi.org/10.1007/s10916-017-0723-6
- Jensen, L. X. and Konradsen, F. (2017). A review of the use of virtual reality head-mounted displays in education and training. Education and Information Technologies, 23(4), 1515-1529. https://doi.org/10.1007/s10639-017-9676-0
- Karl, S. (2020). *The Design Thinking Process How does it work?*. MAQE. https://www.maqe.com/insight/the-design-thinking-process-how-does-it-work/
- Kriklenko, E., Kovaleva, A., Klimenko, A. V., Dukuev, U., & Перцов, С. С. (2022). Multimodal assessment of changes in physiological indicators when presenting a video fragment on screen (2d) versus a vr (3d) environment. Behavioural Neurology, 2022, 1-12. https://doi.org/10.1155/2022/5346128
- Kyaw, B. M., Saxena, N., Posadzki, P., Všetečková, J., Nikolaou, C. K., George, P. P., ... & Car, L. T. (2019). Virtual reality for health professions education: systematic review and meta-analysis by the digital health education collaboration. Journal of Medical Internet Research, 21(1), e12959. https://doi.org/10.2196/12959
- Laver, K., Lange, B., George, S., Deutsch, J. E., Saposnik, G., & Crotty, M. (2017). Virtual reality for stroke rehabilitation. Cochrane Database of Systematic Reviews, 2018(1). https://doi.org/10.1002/14651858.cd008349.pub4
- Lie, S. S., Helle, N., Sletteland, N. V., Vikman, M. D., & Bonsaksen, T. (2022). Implementation of virtual reality in health professional higher education: protocol for a scoping review. JMIR Research Protocols, 11(7), e37222. https://doi.org/10.2196/37222
- Mazrur, Jennah, R. ., Mujib, A. ., & Jamalie, Z. (2023). The acceptance and effectiveness of digital learning technologies: A detailed empirical investigation in Islamic study classrooms. Journal of Education and E-Learning Research, 10(2), 175–186. https://doi.org/10.20448/jeelr.v10i2.4495
- Moreau, K., Sikora, L., & Horsley, T. (2018). Digital storytelling in health professions education: a systematic review. BMC Medical Education, 18(1). https://doi.org/10.1186/s12909-018-1320-1
- Moro, C., Štromberga, Z., Raikos, A., & Stirling, A. (2017). The effectiveness of virtual and augmented reality in health sciences and medical anatomy. Anatomical Sciences Education, 10(6), 549-559. https://doi.org/10.1002/ase.1696
- Nguyên, P. Q., Duyên, L. T. H., Linh, N. Đ. T. D., Thư, N. T., Lê, L. T. T., & Huyền, N. L. T. (2021). Enhancing vietnamese students' entrepreneurial mindset and creativity by design thinking application. Asean Journal of Engineering Education, 3(1). https://doi.org/10.11113/ajee2019.3n1.26
- Neumann, D. L., Moffitt, R. L., Thomas, P. R., Loveday, K., Watling, D. P., Lombard, C. L., ... & Tremeer, M. A. (2017). A systematic review of the application of interactive virtual reality to sport. Virtual Reality, 22(3), 183-198. https://doi.org/10.1007/s10055-017-0320-5
- Oh, E. K., & Nah, K. (2014). Design thinking process model and its application to social innovation. Journal of Korea Design Knowledge, 32, 31-44. https://doi.org/10.17246/JKDK.2014..32.004.

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- Pan, X. and Hamilton, A. F. d. C. (2018). Why and how to use virtual reality to study human social interaction: the challenges of exploring a new research landscape. British Journal of Psychology, 109(3), 395-417. https://doi.org/10.1111/bjop.12290
- Parong, J. and Mayer, R. E. (2018). Learning science in immersive virtual reality.. Journal of Educational Psychology, 110(6), 785-797. https://doi.org/10.1037/edu0000241
- Pettersson, F. (2017). On the issues of digital competence in educational contexts a review of literature. Education and Information Technologies, 23(3), 1005-1021. https://doi.org/10.1007/s10639-017-9649-3
- Pottle, J. (2019). Virtual reality and the transformation of medical education. Future Healthcare Journal, 6(3), 181-185. https://doi.org/10.7861/fhj.2019-0036
- Song, S., Zhao, Y., Yao, X., Ba, Z., & Zhu, Q. (2021). Short video apps as a health information source: an investigation of affordances, user experience and users' intention to continue the use of tiktok. Internet Research, 31(6), 2120-2142. https://doi.org/10.1108/intr-10-2020-0593
- Sukotjo, C., Schreiber, S., Li, J., Zhang, M., Yuan, J. C. C., & Santoso, M. (2021). Development and student perception of virtual reality for implant surgery. Education Sciences, 11(4), 176. https://doi.org/10.3390/educsci11040176
- Yang, D. Y., Allen, T. T., Abdullahi, S. M., Pelphrey, K. A., Volkmar, F. R., & Chapman, S. B. (2018). Neural mechanisms of behavioral change in young adults with high-functioning autism receiving virtual reality social cognition training: a pilot study. Autism Research, 11(5), 713-725. https://doi.org/10.1002/aur.1941
- Zeng, Y., Zhang, M., Cheng, A. S. K., Huang, C., & Wefel, J. S. (2019). Meta-analysis of the efficacy of virtual reality-based interventions in cancer-related symptom management. Integrative Cancer Therapies, 18, 153473541987110. https://doi.org/10.1177/1534735419871108