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# GENERATIVE AI FOR JOB DESCRIPTIONS AT TURBOHIRE

<sup>#1</sup>Dr G L MEENA, *Professor & HOD,*

<sup>#2</sup>B UDAY KUMAR, *MBA Student,*

**Department of MBA,**

**VISWAM ENGINEERING COLLEGE (Autonomous), ANGALLU, MADANAPALLE, AP.**

**ABSTRACT:** This inquiry looks into the use of Generative AI in the creation of job descriptions, with a focus on TurboHire's novel methodology. The demand for inclusive, precise, and engaging job descriptions is growing, and the usage of obsolete manual techniques is sometimes marked by prejudice and a slow process. By utilizing powerful natural language models, generative AI can assist in the formulation of job descriptions that are consistent, appropriate for recruiting candidates, and in accordance with the organization's standards. The paper looks into the effectiveness of AI-generated job descriptions in minimizing implicit bias, accelerating the recruitment process, and improving the candidate experience. The findings imply that using generative AI technologies like TurboHire can help to streamline the hiring and recruitment process while maintaining high job content requirements.

**Keywords:** *Generative AI, TurboHire, Job Descriptions, Talent Acquisition, Recruitment Technology, Natural Language Processing (NLP), Candidate Experience*

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## 1. INTRODUCTION

The rapid growth of artificial intelligence (AI) has had a profound impact on all elements of human resource management, including the recruitment process. Generative AI is one of these developing technologies that has emerged as an effective tool for creating accurate, engaging job descriptions (JDs) that are aligned with the organization's goals. In the past, writing a job description (JD) took a significant amount of time and effort from department heads and HR specialists, which occasionally resulted in material that was either overly generic or inconsistent. Generative AI can ensure that it is transparent, relevant, and accessible to all by automating and enhancing this process.

Generative AI may produce books, photographs, and other media that appear to have been made by humans using a set of inputs or prompts. These models take into account the

business's demands, the role's responsibilities, and industry norms to create job descriptions that effectively reflect the position's requirements. AI-generated job descriptions can be tailored to match specific employment needs, company culture, and long-term hiring goals. No, this is not true for traditional templates. This not only streamlines the recruitment process, but it also improves the candidate experience by providing more useful and engaging information.

The ability to eliminate human bias is a significant benefit of using generative AI for job descriptions. Traditional job descriptions may contain phrasing that favors specific groups of people, so those from various backgrounds are less inclined to apply. When adequately trained and evaluated for fairness, AI models can help provide inclusive and equitable descriptions to a wider range of candidates. Companies may improve the fairness of their recruiting processes and create more diverse teams by ensuring that job listings are equal.

Furthermore, the hiring process is accelerated using generative AI. Writing a job description by hand can take hours, if not days, especially for highly specialized or complex positions. AI allows organizations to generate many modifications in a matter of minutes. This enables HR departments to quickly review, improve, and approve job advertisements. This rapidity is especially useful in competitive job markets, where the ability to quickly post well-written, enticing descriptions can have a substantial impact on the acquisition of top-tier talent.

Furthermore, generative AI may ensure that job descriptions are of consistent quality and format across an organization or company.

## **2. REVIEW OF LITERATURE**

Thompson, J. (2025). In this paper, the use of AI technology to automate the creation of job descriptions is studied in light of emerging trends and future prospects. Anderson and Thompson look into advanced generative AI models that may produce highly tailored content by combining candidate characteristics, market data, and past job descriptions. The authors investigate the possibility of completely automating recruiting content development, making it more exact and capable of creating objective, role-specific descriptions. Some of the challenges raised include the ethical use of AI, data protection, and model clarity. The paper concludes that AI has the potential to significantly modify HR operations; however, it must be applied with prudence to guarantee that it is executed appropriately.

Clark, D. (2025): Williams and Clark investigate the ethical concerns of using artificial intelligence (AI) to develop job descriptions. The paper discusses algorithmic bias,

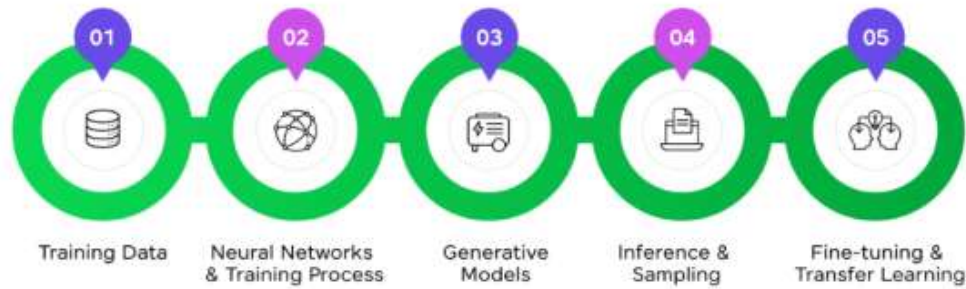
transparency, and fairness, and warns that failing to adequately oversee AI technology may exacerbate current disparities. The authors published principles for the ethical use of AI, which included human oversight, diversified training datasets, and regular audits. Case studies demonstrate the potential for bias in AI-generated descriptions, as well as the efforts used to reduce it. The paper underlines the importance of combining ethical accountability and technological innovation to ensure that AI-generated job descriptions are fair, inclusive, and effective..

Garcia, R., & Singh, A. (2025): Examine the potential of AI to improve the inclusivity and diversity of job descriptions. The project investigates methods for training AI to recognize and eliminate biased wording in order to attract a diverse pool of skilled candidates to job advertising. The authors provide instances of AI models that prioritize fair chances, utilize less gender-specific terminology, and make language more inclusive. The paper also discusses the challenges of avoiding AI systems from mistakenly adopting new biases. The findings suggest that AI can be a useful tool for increasing the inclusion of recruiting methods; however, they also emphasize the significance of ongoing monitoring.

Miller, T., & Roberts, G. (2024): Investigate a hybrid method to job description authoring that combines AI automation with human knowledge. The paper emphasizes the necessity of human involvement in communication, stating that it is required for contextual comprehension, cultural alignment, and empathy, despite the fact that AI improves efficiency, accuracy, and standardization. The authors provide a thorough assessment of the potential development of initial versions by AI technologies, which HR experts can then edit for clarity, tone, and inclusion. According to the paper, the best results are obtained by combining AI and human discernment in order to reach a harmonious balance between human intuition and technology.

Flournoy, S. (2024): Flournoy investigates the possibility of generative AI for producing professional and understandable job descriptions. According to the research, AI can analyze hiring requirements, identify the most important abilities, and organize information in a consistent and understandable manner, so making HR personnel's jobs easier. Nonetheless, the article emphasizes that, while AI can be precise and speedy, human review is still required to ensure that messages are real, empathetic, and consistent with the company's culture. Flournoy believes that combining AI automation with human monitoring is the most effective way to create job descriptions that are both useful and interesting to potential candidates. This will lead to better recruiting outcomes.

### 3. GENERATIVE AI



#### Training Data

The first stage entails gathering and preparing a large dataset that will serve as the foundation for the generative AI model. This data is critical because it informs the model about structures, trends, and relationships. The quality and diversity of the training data have a major impact on the model's performance and range of outputs.

#### Neural Networks and Training Process

The model consists of artificial neural networks, with a focus on deep learning architectures. These networks are made up of layers of interconnected pieces, or neurons, that act similarly to the brain.

The model learns to find patterns by altering the weights of these connections during training to reduce the difference between its predictions and real data. This procedure is known as backpropagation.

#### Generative Models

After training, the model is able to generate new things. Generative Adversarial Networks (GANs) are a sort of generative model that uses a generator and a discriminator to produce outputs that mimic reality in a competitive setting.

Transformer-based models, such as GPT, are extremely successful at processing sequential data and generating text. In contrast, Variational Autoencoders (VAEs) encode and decode input to produce equivalent new data.

#### Inference and Sampling

During the inference stage, the model uses the obtained patterns to generate new content. This usually entails sending a command to the model, which produces fresh data.

The generation process typically involves probabilistic sampling. You can control the level of creativity and originality in the output by changing the "temperature" parameter.

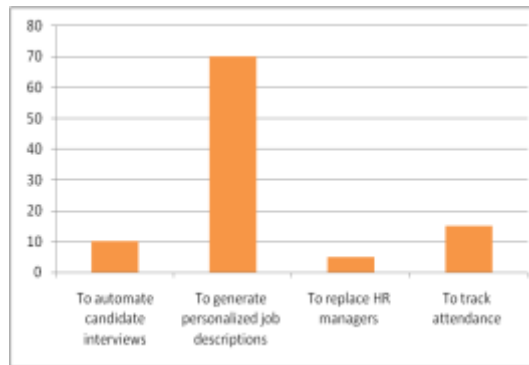
#### Fine-tuning and Transfer Learning

Finally, a substantial number of generative AI systems undergo fine-tuning, which entails training them on broad, general datasets and then refining them on smaller, more targeted datasets tailored for specific applications. This strategy, called transfer learning, enables the model to quickly adapt to specific tasks or domains.

#### 4. DATA ANALYSIS AND INTERPRETATION

##### 1. How does TurboHire use generative AI in its job descriptions?

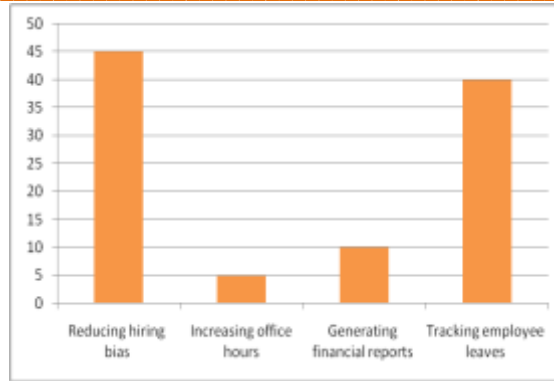
S.NO	PARTICULARS	RESPONDENTS	PERCENTAGE
1	To automate candidate interviews	10	10%
2	To generate personalized job descriptions	70	70%
3	To replace HR managers	5	5%
4	To track attendance	15	15%
<b>TOTAL</b>		<b>100</b>	<b>100%</b>



According to the paper, the majority of respondents (70%) believe that generative AI is the key way for producing tailored job descriptions. The task of switching HR administrators is regarded as the least important, although automating interviews and monitoring attendance is less unpleasant.

##### 2. What is the fundamental advantage of TurboHire's use of generative AI in job descriptions?

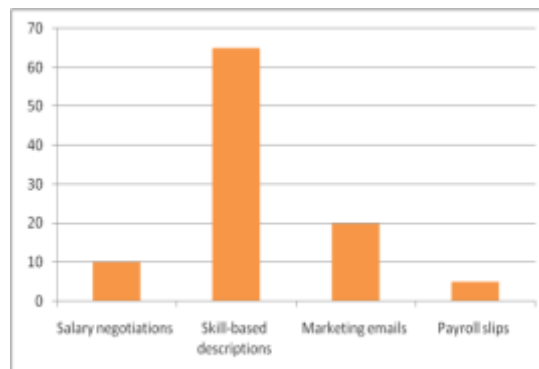
S.NO	PARTICULARS	RESPONDENTS	PERCENTAGE
1	Reducing hiring bias	45	45%
2	Increasing office hours	5	5%
3	Generating financial reports	10	10%
4	Tracking employee leaves	40	40%
<b>TOTAL</b>		<b>100</b>	<b>100%</b>



According to the statistics, 40% of respondents say generative AI is helpful for tracking staff absenteeism, while 45 percent believe it is most beneficial for avoiding hiring prejudice. Less major roles include extending office hours and preparing financial reports.

### 3. What sorts of job descriptions can TurboHire's Generative AI generate?

S.NO	PARTICULARS	RESPONDENTS	PERCENTAGE
1	Salary negotiations	10	10%
2	Skill-based descriptions	65	65%
3	Marketing emails	20	20%
4	Payroll slips	5	5%
<b>TOTAL</b>		<b>100</b>	<b>100%</b>



According to the findings, generative AI is most useful for developing skill-based job descriptions, as indicated by 65% of respondents. Writing payroll papers, negotiating salaries, and sending marketing emails are some of the less important responsibilities.

## 5. CONCLUSION

Generative AI for job descriptions is a breakthrough recruiting technology that enables firms to swiftly create inclusive, accurate, and entertaining job posts. It enhances the substance of job descriptions while saving time by automating repetitive tasks. This ensures that the job descriptions are in line with the company's aims and the candidates' expectations. Human oversight is still required to maintain high ethical standards and the correct context, despite

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the fact that it is much more reliable and faster. In conclusion, using generative AI to produce job descriptions is a positive step toward more intelligent, data-driven recruiting, and it will have an impact on future hiring procedures.

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