

ADAPTING AI FOR ENHANCED INTERVIEW TRAINING: A REAL-TIME AI INTERVIEWER FOR COLLEGE STUDENTS

Sparsh Jain*1, Abhishek Sharma*2, Vani Sharma*3, Mini Aggarwal*4

*1,2,3Student, Computer Science Of Engineering, Maharaja Agrasen Institute Of Technology, New Delhi, Delhi, India.

*4Ex- Mini Aggarwal, Maharaja Agrasen Institute Of Technology, New Delhi, Delhi, India.

DOI : <https://www.doi.org/10.56726/IRJMETS46901>

ABSTRACT

This paper elaborates on an innovative adaptation of the AI Talks platform, creating a real-time AI interviewer designed specifically for college students. This adaptation aims to provide a versatile and interactive platform for career preparation, emphasizing the importance of AI in enhancing interview skills and soft skills evaluation in the context of the evolving job market dynamics.

I. INTRODUCTION

The integration of Artificial Intelligence (AI) in educational and career preparation tools has revolutionized the way students prepare for their professional life. This project represents a significant contribution to this field by adapting the AI Talks platform into a real-time AI interviewer for college students. The system aims to provide an immersive and realistic interview experience, preparing students for a variety of career paths in the digital era. The project's inception was inspired by the changing landscape of job interviews and the increasing importance of soft skills and adaptability in the job market.

II. BACKGROUND

The changing nature of job interviews, including the rise of remote interviews and digital communication, necessitates a new approach to interview preparation. Traditional methods are increasingly supplemented by AI-based tools, reflecting the market's shift towards more dynamic and technologically integrated processes. This project responds to these changes by providing a tool that helps students adapt to these new formats, focusing on developing their skills in a way that aligns with current employer expectations.

III. METHODOLOGY

The project builds upon the AI Talks platform, which serves as a user-friendly interface for interacting with OpenAI's ChatGPT. This base system is adapted to include domain-specific interview scenarios, aligning with different job roles and industries. This approach allows the AI to function as an interviewer, providing relevant and challenging questions and feedback, which is crucial for a realistic training experience. The system's design emphasizes flexibility, allowing for continuous updates and improvements based on user feedback and advancements in AI technology.

Application in Career Readiness

The AI interviewer is a vital tool for enhancing career readiness among college students. It allows students to practice interviews in a stress-free environment, receiving immediate and objective feedback. The system's focus on domain-specific scenarios ensures that students receive a comprehensive and relevant training experience, preparing them for interviews in their chosen fields.

IV. RESULTS

Initial tests of the system indicate a positive impact on students' interview skills and confidence. Participants reported a better understanding of interview dynamics and improved ability to respond to a variety of questions. The AI's feedback was found to be insightful and constructive, particularly in developing soft skills like communication, problem-solving, and adaptability, which are increasingly valued in the modern workplace.

V. CONCLUSION

The development of this real-time AI interviewer represents a significant advancement in career preparation tools for college students. It offers a novel, dynamic, and tailored approach to interview practice, addressing the need for modern, technology-driven training methods in education. The project's success lies in its ability to

simulate realistic interview environments, preparing students for the challenges of the contemporary job market.

VI. FUTURE DIRECTIONS

Future enhancements to the system will focus on integrating more advanced AI algorithms for more nuanced feedback, expanding the range of job domains covered, and exploring the integration of virtual and augmented reality elements for a more immersive training experience. The project will continue to evolve with the advancements in AI and educational methodologies to remain a relevant and effective tool for career preparation.

VII. REFERENCES

- [1] B C Lee and B Y Kim, "Development of an AI-Based Interview System for Remote Hiring", International Journal of Advanced Research in Engineering and Technology (IJARET), 12(3), 2021, pp. 654-663.
- [2] Suen, HY., Hung, KE. & Lin, CL. Intelligent video interview agent used to predict communication skill and perceived personality traits. Hum. Cent. Comput. Inf. Sci. 10, 3 (2020)
- [3] R. Mandal, P. Lohar, D. Patil, A. Patil and S. Wagh, "AI -Based mock interview evaluator: An emotion and confidence classifier model," 2023 International Conference on Intelligent Systems for Communication, IoT and Security (ICISCoIS), Coimbatore, India, 2023, pp. 521-526, doi: 10.1109/ICISCoIS56541.2023.10100589.
- [4] Yi-Chi Chou, Felicia R. Wongso, Chun-Yen Chao and Han-Yen Yu, "An AI Mock-interview Platform for Interview Performance Analysis", 10th International Conference on Information and Education Technology, 2022.
- [5] Dulmini Yashodha Dissanayake, Venuri Amalya, Raveen Dissanayaka, Lahiru Lakshan, Pradeepa Samarasinghe, Madhuka Nadeeshani, et al., "AI-based Behavioural Analyser for Interviews/Viva", IEEE 16th International Conference on Industrial and Information Systems (ICIIS), 2021.
- [6] Vikash Salvi, Adnan Vasanwalla, Niriksha Aute and Abhijit Joshi, "Virtual Simulation of Technical Interviews", IEEE, 2017.
- [7] Y. C. Chou and H. Y. Yu, "Based on the application of AI technology in resume analysis and job recommendation", IEEE International Conference on Computational Electromagnetics (ICCEM), pp. 291-296, 2020.
- [8] Aditi S. More, Samiksha S. Mobarkar, Siddhita S. Salunkhe and Reshma R. Chaudhari, "Smart Interview Using Ai", Technical Reacher Organization Of India, 2022.
- [9] Sahil Temgire, Akash Butte , Rohan Patil , Varun Nanekar, Shivganga Gavhane, 2021, Real Time Mock Interview using Deep Learning, INTERNATIONAL JOURNAL OF ENGINEERING RESEARCH & TECHNOLOGY (IJERT) Volume 10, Issue 05 (May 2021)
- [10] H. Suen, K. Hung and C. Lin "Intelligent video interview agent used to predict communication skill and perceived personality traits", Human-centric Computing and Information Sciences vol.10, no.03, 2020.
- [11] Denae Ford, Titus Barik, Leslie Rand-Pickett and Chris Parnin, "The Tech-Talk Balance: What Technical Interviewers Expect from Technical Candidates", IEEE, 2017.
- [12] Julie E. Sharp, "Work in Progress: Using Mock Telephone Interviews with Alumni to Teach Job Search Communication", IEEE, 2022.
- [13] Xinpei Jin, Yulong Bian, Wenxiu Geng, Yeqing Chen, Ke Chu, Hao Hu, et al., "Developing an Agent-based Virtual Interview Training System for College Students with High Shyness Leve", IEEE, 2022.
- [14] Esch, P., Black, J. S., and Ferolie, J. Marketing AI recruitment: The next phase in job application and selection. Computers in Human Behavior, 90, 2019, pp. 215-222
- [15] Suen, H. Y., Chen, M. Y. C., and Lu, S. H. Does the use of synchrony and artificial intelligence in video interviews affect interview ratings and applicant attitudes? Computers in Human Behavior, 98, 2019, pp. 93-101
- [16] Raviprolu, A. Role of artificial intelligence in recruitment. International Journal of Engineering Technology, 5(4), 2017, pp. 115-117
- [17] Geetha R. and Bhanu, S. R. D. Recruitment through artificial intelligence: A conceptual study. International Journal of Mechanical Engineering and Technology, 9, 2019, pp. 63-70

-
- [18] Muthukumaran, C.K., 2014. Recruitment process: a study among the employees at information technology (it) industry in Chennai. *International Journal of Management Research and Reviews*, 4(1), p.91.
- [19] I. Stanica, M. Dascula, C. Bodea and A. Moldovean "VR Job Interview Simulator: Where Virtual Reality Meets Artificial Intelligence For Education", 2018 Zooming Innovation in Consumer Technologies Conference (ZINC), 2018.
- [20] H. Suen, K. Hung and C. Lin "Intelligent video interview agent used to predict communication skill and perceived personality traits", *Human-centric Computing and Information Sciences* vol.10, no.03, 2020.
- [21] S. Katakwar, O. Mahamuni, N. Inamdar and S. Sadanand "Emotion and Personality Analysis in Recorded Video Interview Using TensorFlow", *International Research Journal of Engineering and Technology (IRJET)*, vol.08, no.04, 2021.
- [22] D. Shin, K. Chung and R. Park "Detection of Emotion Using Multi-Block Deep Learning in a Self-Management Interview App", *Applied Sciences*, vol.09, no.22, 2019.
- [23] E. Frant, I. Ispas, V. Dragomir, M. Dascalu, E. Zoltan and I. Stoica "Voice Based Emotion Recognition with Convolutional Neural Networks", *Romanian Journal Of Information Science And Technology*, vol.20, no.03, 2017, pp. 222–240.
- [24] "50 HR & Recruiting Stats That Make You Think", Glassdoor Survey, January 2015.
- [25] Y. C. Chou, C. Y. Chao and H. Y. & Yu, "A Résumé Evaluation System Based on Text Mining", 2019 International Conference on Artificial Intelligence in Information and Communication (ICAIIIC), pp. 052-057, 2019.
- [26] Chiara Signore, Bice Della Piana, Francesco Di Vincenzo, "Digital Job Searching and Recruitment Platforms: A Semi-systematic Literature Review", *Methodologies and Intelligent Systems for Technology Enhanced Learning, Workshops - 13th International Conference*, vol.769, pp.313, 2023