A Review on Machine Learning–Based Gesture Recognition System for Virtual Mouse and Keyboard

Neha Salave, Ishwari Ghule, Vishal Khobragade, Ganesh Jadhav, K.O.Akhade
Dept. of Computer Engineering
Sinhgad Institute of Technology and Science, Pune, India

Abstract*: The Gesture Recognition-Based Virtual Mouse and Keyboard is an emerging technology that utilizes computer vision and machine learning algorithms to interpret hand gestures and movements as commands for controlling the cursor and inputting text, eliminating the need for physical input devices such as a mouse and keyboard. This technology offers a more natural and intuitive way to interact with computers, making it an ideal solution for individuals with mobility or dexterity limitations.*
This paper will also review the state of the art in this field, inc, and highlight some of the challenges and opportunities for future research and development. Overall, Gesture Recognition-Based Virtual Mouse and Keyboard technology have the potential to revolutionize the way we interact with computers, making it easier, more efficient, and more accessible for everyone.

Keywords: Gesture Recognition, Virtual Inputs, Hand Tracking, Computer Vision, Machine Learning

REFERENCES

[1]. S. Sadhana Rao," Sixth Sense Technology", Proceedings of the International Conference on Communication and Computational Intelligence– 2010, pp.336-339.

[2]. Game P. M., Mahajan A.R," A gestural user interface to Interact with computer system ", International Journal on Science and Technology (IJSAT) Volume II, Issue I, (Jan.- Mar.) 2011, pp.018 – 027.

[3]. Christy, A., Vaithyasubramanian, S., Mary, V.A., Naveen Renold, J. (2019)," Artificial intelligence based automatic decelerating vehicle control system to avoid misfortunes ", Issue.6, Pp. 3129-3134

[4]. Christy, A., Vaithyasubramanian, S., Mary, V.A., Naveen Renold, J. (2019)," Artificial intelligence based automatic decelerating vehicle control system to avoid misfortunes ", International Journal of Advanced Trends in Computer Science and Engineering, Vol. 8, Issue.6, Pp. 3129-3134

[5]. Praveena, M.D.A., Eriki, M.K., Enjam, D.T.," Implementation of smart attendance monitoring using open-CV and python", Journal of Computational and Theoretical Nanoscience, Vol. 16, Number 8 pp:3290-3295 • August 2019

[6]. M.S.Roobini, DrM.Lakshmi,(2019), "Classification of Diabetes Mellitus using Soft Computing and Machine Learning Techniques", International Journal of Innovative Technology and Exploring Engineering, ISSN: 2278-3075, Volume-8, Issue- 6S4

[7]. G. M. Gandhi and Salvi, "Artificial Intelligence Integrated Blockchain For Training Autonomous Cars," 2019 Fifth International Conference on Science Technology Engineering and Mathematics (ICONSTEM), Chennai, India, 2019, pp. 157-161

[8]. Christy, A., Vaithyasubramanian, S., Mary, V.A., Naveen Renold, J. (2019)," Artificial intelligence based automatic decelerating vehicle control system to avoid misfortunes ", International Journal of Advanced Trends in Computer Science and Engineering, Vol. 8, Issue.6, Pp. 3129-3134

[9]. Real-time hand gesture recognition with EMG using machine learning, Andrés G. Jaramillo; Marco E. Benalcázar, 2017 IEEE Second Ecuador Technical Chapters Meeting (ETCM)