Development of a pattern detection and classification system based on ML

Sartak aggarwal

[1]Research Intern
[1]The Research World, New Delhi, India
[1] sartak.aggarwal001@ gmail.com*
* corresponding author

ARTICLE INFO

Article History:
Received January 1, 2020
Revised January 31, 2020
Accepted March 12, 2020

Keywords:
AI, ML Big Data, IoT, pattern,computer
,

Correspondence:
E-mail: sarthak.aggarwal001@ gmail.com

ABSTRACT

In this study, we discuss the implementation of a pattern recognition system with many steps. Pattern recognition is critical in many domains, including video surveillance, biometrics, interactive gaming applications, human computer interaction, and access control systems. These systems necessitate rapid real-time detection and identification with a high recognition rate. In this work, we present a pattern recognition system implementation. We use picture preprocessing and neural networks to improve the system's recognition rate.

Contact Editor for Full paper Contact @ijsdcs.com

References

[1] M. Beszedes and M. Oravec, "A System For Localization Of Human Faces In Images Using Neural Networks", Journal Of Electrical Engineering, vol. 56, no. 7–8, pp. 195-199, 2014.

[2] Batyrkhan Omarov, Azizah Suliman and Kaisar Kushibar, "Face recognition using artificial neural networks in parallel architecture", Journal of Theoretical and Applied Information Technology; Islamabad, vol. 91, no. 2, pp. 238-248, Sep 2016.

[3] A. Altayeva, B. Omarov, H.C. Jeong and Y.I. Cho, "Multi-step face recognition for improving face detection and recognition rate", Far East Journal of Electronics and Communications, vol. 16, no. 3, pp. 471-491, 2016.

[4] D. Ciresan, "Multicolumn Deep Neural Networks for Image Classification", Proceedings of the 2012 IEEE Conference on Computer Vision and Pattern Recognition (CVPR) CVPR '12, pp. 3642-3649, 2012.

[5] B. Omarov, A. Suliman and A. Tsoy, "Parallel backpropagation neural network training for face recognition", Far East Journal of Electronics and Communications, vol. 16, no. 4, pp. 801-808, December 2016.

[6] P. Lutz, "Early Stopping-But When?" in Neural Networ ks: Tricks of the Trade, London, UK:Springer-Verlag, pp. 1998.

[7] Libor Spacek, Electron resource, June 2016, [online] Available: http://www.essex.ac.uk/mv/allfaces/index.html.

[8] A.B. Altayeva, B.S. Omarov, A.Z. Aitmagambetov, B.B. Kendzhaeva and M.A. Burkitbayeva, "Modeling and exploring base station characteristics of LTE mobile networks", Life Science Journal, vol. 11, no. 6, pp. 227-233, 2014.Show in Context View

Article Full Text: PDF (286KB) Google Scholar

[9] T. Stonier, "The evolution of machine intelligence", In Beyond Information, pp. 107-133, 1992.

[10] Converse PE (1968) Time budgets. In: Sills D (ed.) International Encyclopedia of the Social Sciences. New York: Macmillan, pp. 42–47.

[11] Dayan D and Katz E (1992) Media Events: The Live Broadcasting of History. Cambridge, MA: Harvard University Press.

[12] De Grazia S (1962) Of Time, Work, and Leisure. New York: Twentieth Century Fund.