

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

Volume 2, Issue 3, November 2022

# A Review on Multi Model Recognition and Mining Alphabets Identification using NLP

Mayur Sakhare<sup>1</sup>, Vishal Sonawane<sup>2</sup>, Rushikesh Bhalerao<sup>3</sup>, Nikita Karpe<sup>4</sup>, Prof.Niranjan Bhale<sup>5</sup> Students, Department of Information Technology<sup>1,2,3,4</sup>

HOD, Department of Information Technology<sup>5</sup>

Matoshri College of Engineering and Research Centre, Nashik, Maharashtra, India

**Abstract:** Optical character recognition, usually abbreviated to OCR, is the electronic conversion of scanned or photographed images of typewritten or printed text into machine encoded / computer - readable text. It is widely used as a form of data entry from some sort of original paper data source, whether passport documents, invoices, bank statement, receipts, business card, mail, or any number of printed records. It is a common method of digitizing printed texts so that they can be electronically edited, searched, stored more compactly, displayed on-line, and used in machine processes such as machine translation, text-to-speech, key data extraction and text mining. OCR is a field of research in pattern recognition, Artificial Intelligence and Computer Vision. Optical Character Recognition (OCR) is the electronic translation of handwritten, typewritten or printed text into machine translated images. It is widely used to recognize and search text from electronic documents or to publish the text on a website. In our proposed methodology we developed our system on a desktop system.

Keywords: OCR, python, AI, Image processing, NLP, Photo, image, character.

## REFERENCES

- [1]. Chaudhuri, K. Mandaviya, P. Badelia, and S. K. Ghosh, Optical character recognition systems, vol. 352. 2017. doi: 10.1007/978-3-319-50252-6\_2.
- [2]. P. Divya et al., "Web based optical character recognition application using flask and tesseract," Mater. Today Proc., no. xxxx, 2021, doi: 10.1016/j.matpr.2020.10.850
- [3]. A. T. Sahlol, C. Y. Suen, H. M. Zawbaa, A. E. Hassanien, and M. A. Elfattah, "Bioinspired BAT optimization algorithm for handwritten Arabic characters recognition," 2016 IEEE Congr. Evol. Comput. CEC 2016, pp. 1749–1756, 2016, doi: 10.1109/CEC.2016.7744000.
- [4]. A. Dobroczoni, R. Takacs, B. M. Cermak, and Shchokin, "Design Of Machines And Structures," vol. 18, no. 1, pp. 2–4, 2014.
- [5]. H. Singh and A. Sachan, "A Proposed Approach for Character Recognition Using Document Analysis with OCR," Proc. 2nd Int. Conf. Intell. Comput. Control Syst. ICICCS 2018, no. Iciccs, pp. 190–195, 2019, doi: 10.1109/ICCONS.2018.8663011.
- [6]. Sushruth Shastry, Gunasheela G, Thejus Dutt, Vinay D S and Sudhir Rao Rupanagudi, "i" A novel algorithm for Optical Alphabet Recognition (OCR). 978-1-4673-5090- 7/13/\$31.00 ©2013 IEEE.
- [7]. Lulu Zhang, Xingmin Shi, Yingjie Xia, Kuang Mao, "A Multi-filter Based License Plate Localization and Recognition Framework". 978-1-4673-4714-3/13/\$31.00 ©2013 IEEE.
- [8]. Ibrahim El Khatib, Yousef Samir-Mohamad Omar, and Ali Al Ghouwayel, "AN EFFICIENT ALGORITHM FOR AUTOMATIC RECOGNITION OF THE LEBANESE CAR LICENSE PLATE. ISBN: 978-1-4799-5680-7/15/\$31.00 ©2015 IEEE.
- [9]. Jieun Kim, and Ho-sub Yoon "Graph Matching Method for Alphabet Recognition in Natural Scene Images. 978-1-4244-8956- 5/11/\$26.00 ©2011 IEEE
- [10]. Feng Yanga, and Fan Yangb, "Alphabet Recognition Using Parallel BP Neural Network". 978-14244-1724-7/08/\$25.00©2008IEEE.
- [11]. Rókus Arnold, and Póth Miklós "Alphabet Recognition Using Neural Networks. 11th IEEE International Symposium on Computational Intelligence and Informatics • 18–20 November, 2010 • Budapest, Hungary.

## IJARSCT



## International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

#### Volume 2, Issue 3, November 2022

- [12]. Amarjot Singh, Ketan Bacchuwar, Akash Choubey, and Devinder Kumar, "An OMR Based Automatic Music Player". 978- 1-61284-840-2/11/\$26.00 ©2011 IEEE.
- [13]. Shan Du, Member, IEEE, Mahmoud Ibrahim, Mohamed Shehata, Senior Member, IEEE, and Wael Badawy, Senior Member, IEEE "Automatic License Plate Recognition (ALPR): A State-ofthe-Art Review, IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY, VOL. 23, NO. 2, FEBRUARY 2013.
- [14]. Imran Shafiq Ahmad, Boubakeur Boufama, Pejman Habashi, William Anderson and Tarik Elamsy, "Automatic License Plate Recognition.
- [15]. A Comparative Study". 2015 IEEE International Symposium on Signal Processing and Information Technology (ISSPIT).
- [16]. Rejean Plamondon, Fellow, IEEE, and Sargur N. Srihari, Fellow, IEEE, "On-Line and Off-Line Handwriting Recognition: A Comprehensive Survey 1EEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE. VOL. 22, NO.
- [17]. Hadar I. Avi-Itzhak, Thanh A. Diep, and Harry Garland, "High Accuracy Optical Alphabet Recognition Using Neural Networks with Centroid Dithering IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE, VOL. 17, NO. 2, FEBRUARY 1995.