IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 7, May 2023

A Survey on Various Methods of Skin Cancer Detection

Amit Khobragade[1], Ananta V. Khodake[2], Geet R. Deshmukh[3], Shahu S. Khurad[4], Prof. D. C. Dhanwani[5]
Students, P. R. Pote Patil College of Engineering and Management, Amravati[1,2,3,4,5]

Abstract: *Skin lesion classification is a critical task in dermatology as accurate diagnosis of skin lesions is essential for determining appropriate treatment plans and improving patient outcomes. The ham-10000 dataset is a popular dataset of skin lesion images that has been widely used for developing machine learning algorithms for skin lesion classification. However the ham-10000 dataset is characterized by a significant class imbalance problem where the number of samples in some classes is much smaller than others this can lead to biased and inaccurate performance of machine learning algorithms particularly in identifying rare malignant lesions therefore addressing the class imbalance problem is essential for developing accurate and reliable skin lesion classification models using the ham 10000 dataset various strategies have been proposed to address the class imbalance problem including oversampling undersampling and data augmentation techniques the effectiveness of these strategies may vary depending on the specific characteristics of the dataset and the algorithm being used therefore careful consideration and evaluation of different strategies are necessary to ensure the development of robust and reliable skin lesion classification models using the ham 10000 dataset..*

Keywords: *Skin lesion*

REFERENCES

[1]. R. R. Subramanian, D. Achuth, P. S. Kumar, K. Naveen kumar Reddy, S. Amara and A. S. Chowdary, "Skin cancer classification using Convolutional neural networks," 11th International Conference on Cloud Computing, Data Science & Engineering (Confluence), 2021, pp. 13-19
[2]. L. Yu, H. Chen, Q. Dou, J. Qin, P.-A. Heng, "Automated melanoma recognition in dermoscopy images via very deep residual networks", IEEE Trans. Med. Imaging 36 (4) (2017) 994–1004.
[3]. Wender,RC."Barriers to effective skin cancer detection." Cancer vol. 75,2 Suppl (1995): 691-8.
[4]. G. Litjens, T. Kooi, B.E. Bejnordi, A.A.A. Setio, F. Ciompi, M. Ghafoorian, J.A. Van Der Laak, B. Van Ginneken, C.I. Sánchez, "A survey on deep learning in medical image analysis", Med. Image Anal. 42 (2017) 60–88.
[5]. A. Esteva, B. Kuprel, R.A. Novoa, J.Ko, S.M. Sweater, H.M. Blau, S. Thrun, "Dermatologist-level classification of skin cancer with deep neural networks", Nature 542 (7639) (2017) 115.
[6]. Tschandl, Philipp &Rosendahl, Cliff & Kittler, Harald. (2018). "The HAM10000 Dataset: A Large Collection of Multi-Source Dermatoscopic Images of Common Pigmented Skin Lesions. Scientific Data".
[7]. H. Ide and T. Kurita, "Improvement of learning for CNN with ReLU activation by sparse regularization," 2017 International Joint Conference on Neural Networks (IJCNN), 2017, pp. 2684-2691,
[8]. Tabik, Siham& Peralta, Daniel & Herrera-Poyatos, Andrés & Herrera, Francisco. "(2017). A snapshot of image Pre-Processing for convolutional neural networks"Case study of minst international journal of computaional intelligence systems, vol. 10, no. 1, pp. 555–568, 2017.
[9]. World Cancer Research Fund International 2020, Skin cancer statistics, accessed 8 Dec 2022,https://www.wcrf.org/cancer-trends/skin-cancer-statistics/