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Identification of Plant Leaf Disease by CNN Learning Techniques

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Abstract: The diagnosis of brain tumours demands extreme precision since even the smallest errors in judgment can have serious consequences. Because of this, segmenting brain tumours is a significant medical difficulty. There are now a number of tumour segmentation methods, however none of them are very accurate. Here, we offer a machine learning-based approach to segmenting brain tumours. The numerous approaches, including image processing, picture capture, pre-processing, segmentation, feature extraction, and classification, are presented in detail in this study. In this study, we looked at various brain MR pictures and segmented each one to determine if it was benign or cancerous using Convolution Neural Network methods.

Keywords: Segmentation, Tumor, Machine Learning, MR Images, Convolution Neural Network, etc.

REFERENCES

- [1] Menze BH, Jakab A,Bauer S, Kalpathy-Cramer J, Farahani K, Kirby J, et al., "The Multimodal Brain Tumor Image Segmentation Benchmark (BRATS)," Medical Imaging, IEEE Transactions on, vol. 34, pp. 1993-2024, Dec 4 2015.
- [2] M. Prastawa, E. Bullitt, S. Ho, and G. Gerig, "A brain tumor segmentation framework based on outlier detection," Med Image Anal., vol. 8, pp. 275-283, 2004.
- [3] S. Bauer, L.-P. Nolte, and M. Reyes, "Fully automatic segmentation of brain tumor images using support vector machine classification in combination with hierarchical conditional random field regularization," MICCAI, vol. 6893, pp. 354-361, 2011.
- [4] Nicholas J. Tustison, K. L. Shrinidhi, MaxWintermark, Christopher R. Durst, Benjamin M. Kandel, James C. Gee, et al., "Optimal Symmetric Multimodal Templates and Concatenated Random Forests for Supervised Brain Tumor Segmentation (Simplified) with ANTsR," Neuroinformatics, vol. 13, pp. 209-25, Apr 2015.
- [5] L. Wang, F. Shi, G. Li, W. Lin, J. H. Gilmore and D. Shen, "Patch-driven neonatal brain MRI segmentation with sparse representation and level sets," 2013 IEEE 10th International Symposium on Biomedical Imaging, San Francisco, CA, USA, 2013, pp. 1090-1093, doi: 10.1109/ISBI.2013.6556668.
- [6] C. Li, R. Huang, Z. Ding, J. C. Gatenby, D. N. Metaxas and J. C. Gore, "A Level Set Method for Image Segmentation in the Presence of Intensity In homogeneities With Application to MRI," in IEEE Transactions on Image Processing, vol. 20, no.7, pp. 2007-2016, July 2011, doi: 10.1109/TIP.2011. 2146190.