Devanagari Character Recognition Using Deep Learning

Atharva Hase, Viral Jain, Parag Gujarathi, Aditi Bhor, Swati Bhonde
Department of Computer Engineering
Amrutvahini College of Engineering, Sangamner, Maharashtra, India

Abstract: *The Devanagari script is one of the broadly used scripts of India and is advanced from the Brahmi script. It includes forty-seven number one alphabets, 14 vowels, 33 consonants, and 10 digits. There isn't any capitalization of letters, like in the English language. The Devanagari script includes consonants and modifiers. Deep gaining knowledge of strategies is carried out to extract capabilities and apprehend the characters in an image. A Deep Convolutional Neural Network (DCNN) had been included to extract capabilities and classify the entered images. Consecutive convolutional layers are used in this manner which brings introduced gain withinside the manner of extracting higher-degree capabilities. The output of the CNN layers is fed to the completely related layers. The version has applied the use of Keras libraries on the pinnacle of a TensorFlow backend. Finally, the threat or possibility rating of every person is decided and the person with the very best possibility rating is proven because of the output. Handwritten Devanagari Character Recognition is extra tough in contrast to the popularity of the Roman characters.*

Keywords: Pre-processing, Segmentation, Classification, Image recognition, Convolutional Neural Network, Deep Learning, Devanagari Character Recognition.

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