

Web Based Tamil Handwritten Recognition using Machine Learning

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Abstract: *A Convolutional Neural Network (CNN) is developed to recognize isolated Tamil handwritten characters. The preprocessing steps include converting images to grayscale, reducing noise, applying adaptive thresholding, and performing segmentation. The model is created and trained with Torch, and it is incorporated into a web application utilizing React, Bootstrap and Flask for managing files and outputting results. The recognized characters are transformed into Unicode. The final goal is to achieve accurate sentence-level recognition using Transformers*

Keywords: Tamil OCR, Handwritten Recognition, CNN, Deep Learning, PyTorch, Flask, Image Processing, React.

