School of Engineering and Applied Science (SEAS), Ahmedabad University

B.Tech(ICT) Semester VI : Machine Learning (CSC523)

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Project Title :
Handwritten Text Recognition using Convolutional Neural Networks

Problem Statement

Text Recognition in handwritten texts is a challenging problem owing to the large amount of variability in language, fonts, textures, lighting conditions, background and style of handwritings. This problem has attracted significant attention from the research community. Algorithms developed for this problem have adopted the conventional approach by carefully selecting the features for training the models. Though the use of conventional feature-based approach would yield better accuracies, the models can only be expected to work well on a small range of handwritten texts and would not be generalized for any kind of written text because of the dependence of the algorithm on hand-engineered features. Our work would focus on working with a more all-encompassing framework constituting convolutional neural network and Long Short-Term Memory (LSTMs) for detection of handwritten text in the data and recognition of the text. The generalized framework would help us in grading handwritten assignments with less restrictions for the writer to work upon.