Using CNN for letter recognition in images

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Abstract—**In this report I describe my research related to developing CNN (Convolutional Neural Network) from scratch and then finding the best parameters to train it in recognizing letters in images. It shows how image is processed in between layers using my own implementation of them and then it shows what are the best parameters to use in such a network to develop best working model.**

Index Terms—**CNN, kernel, stride, letter recognition, object recognition, cifar10**

I. Introduction

This research project revolved around finding the best parameters for learning a neural network to recognize letters in images. Parameters that I looked on were the pooling size, kernel and stride for convolutional layer, and dropout rate in between layers.

II. Problem specification

III. Methods applied

IV. Results

V. Discussion

Acknowledgment

References