FINAL YEAR PROJECT REPORT

IMAGE CLASSIFICATION OF CLOTHING ARTICLES

In fulfillment of the requirement
For degree of
BS (COMPUTER SCIENCES)

By

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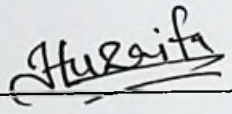
DECLARATION

We hereby declare that this project report is based on our original work except for citations and quotations which have been duly acknowledged. We also declare that it has not been previously and concurrently submitted for any other degree or award at Bahria University or other institutions.

Signature : 

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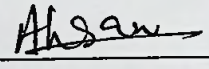
Signature : 

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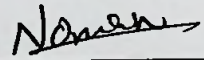
Signature : 

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APPROVAL FOR SUBMISSION

We certify that this project report entitled **"IMAGE CLASSIFICATION OF CLOTHING ARTICLES"** was prepared by **AHSAN GHAFFAR, HUZAIFA SHAHID, NOMAN AHMED** has met the required standard for submission in partial fulfilment of the requirements for the award of Bachelor of Computer Science at Bahria University.

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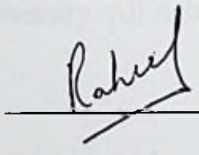
Signature : 

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IMAGE CLASSIFICATION OF CLOTHING ARTICLES

ABSTRACT

A picture is worth a thousand words. Albeit a cliché, for the fashion industry, an image of a clothing article allows one to perceive its category (e.g., dress, coat, shirt, sneakers, etc). Image classification is a classical Computer Vision problem.

By what method may we approach composing a calculation that can characterize pictures of apparel articles into particular classifications like shirts, jeans, dress, and shoes? PC Vision scientists have concocted an information driven way to deal with address this. Rather than attempting to determine what all of the picture classifications of premium look like straightforwardly in code, they give the PC numerous instances of each picture class and afterward create learning calculations that take a gander at these models and find out about the visual appearance of each class. In other words, they first accumulate a training dataset of labeled images, then feed it to the computer in order for it to get familiar with the data.

Despite the fact that the current customary picture grouping strategies have been generally applied in functional issues, there are a few issues in the application cycle, for example, inadmissible impacts, low order accuracy results, and feeble versatile capacity. The deep learning model has an amazing learning capacity, which coordinates the component extraction and order measure into an entire to finish the picture grouping test, which can adequately improve the picture characterization precision. To apply this image classification algorithm, we use Convolutional Neural Networks (CNNs) which is the most popular neural network model being used for image classification problem. The large thought behind CNNs is that a nearby comprehension of a picture is adequate. The reasonable advantage is that having less boundaries enormously improves the time it takes to learn just as decreases the measure of information needed to prepare the model. Rather than a completely associated network of loads from every pixel, a CNN has barely enough loads to take a gander at a little fix of the picture. It's like reading a book by using a magnifying glass. The magnificence of the CNN is that the quantity of boundaries is autonomous of the size of the first picture. You can run a similar CNN on any picture of any goal, and the quantity of boundaries won't change in the convolution layer.

TABLE OF CONTENTS