**Literature Survey**

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Title** | **Method** | **Remarks** |
| 2012 | ImageNet Large Scale Visual Recognition | Use of ISLVRC dataset to train the validation set manually for image recognition using image classification, object localization and semantic segmentation. | **Advantages** :  No limitations like as human perception.  **Disadvantages**:  Data processing and analytics is intensive and requires a large amount of computation resources and memory. |
| 2016 | Deep Residual learning for Image Recognition | Image classification using deep convolutional neural networks | **Advantages**:  Reduces the need for feature engineering, one of the most time-consuming parts of machine learning practice.  **Disadvantages**:  Is extremely computationally expensive to train. The most complex models take weeks to train using hundreds of machines equipped with expensive GPUs. |
| 2014 | Visualizing and Understanding  Convolutional Networks | Use of ImageNet to classify images using Convolutional Neural Networks | **Advantages:**  Has best-in-class performance on problems that significantly outperforms other solutions in multiple domains.  **Disadvantages**:  Requires a large amount of data |
| 2012 | ImageNet Classification with Deep Convolutional  Neural Networks | ImageNet database is used for image classification using Deep Convolutional Neural Networks | **Advantages**:  Is an architecture that can be adapted to new problems relatively easily  **Disadvantages**:  Requires heavy computation for training the data. |