**Neural network project report**

* **Inception Model**

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| **Epochs** | **Learning Rate** | **Train Data Size** | **Data Augmentation** | **Data**  **Oversampling** | **Any Type of**  **Regularization** | **Accuracy** |
| 100 | 0.0001 | 5551 images | Yes | No | None | 69.230% |
| 150 | 0.0001 | 5551 images | Yes | No | None | 70.615% |
| 200 | 0.001 | 5551 images | Yes | No | None | 78.153% |
| 250 | 0.001 | 5551 images | Yes | No | None | 66.769% |
| 100 | None | 5551 images | Yes | No | Yes | 76.461% |
| 50 | None | 5551 images | Yes | No | Yes | 75.384% |
| 50 | 0.0004 | 51,736 images | Yes | Yes | Yes | 82.461% |

* **ResNet50**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Epochs** | **Learning Rate** | **Train Data Size** | **Data Augmentation** | **Data**  **Oversampling** | **Any Type of**  **Regularization** | **Accuracy** |
| 100 | None | 10,809 images | Yes | Yes | Yes | 63.846% |
| 100 | 0.0001 | 21,445 images | Yes | Yes | No | 70% |