**Abstract**

This project is about an Image Classifier that we are going to build using the Kaggle Pokemon dataset. Classifiers are used to classify objects/entities on the basis of their features. Similar objects come under the same category. It can be used to find the categories of the objects. In this project we are going to build a model based on Convolutional Neural Networks.

**Dataset Used**

The Pokemon Images are used as dataset in our project. It contains a total of 126 Pokemons which can be used for classification but due to the lack of computational resources we are going to classify five pokemons. Each pokemon has more than 100 images. The data was collected through the Kaggle website.

**Tools Required**

**Software Requirement** include:

* Jupyter Notebooks
* Cuda
* Anaconda Distribution

**Hardware Requirement**

* Any Intel or AMD x64 processor
* 8 GB Ram
* 10 Gb Free Disk Space
* Cuda supported graphics card

Methodology:

* Extracting the images from local directories and then preparing them to be fed to the network.
* Building a convolutional neural architecture
* Training on the high-performance GPU’s
* Using Gradient Descent and Back Propagation to reduce error
* Hyperparameter tuning to further improve the accuracy