

**Submit Folder:**

[https://drive.google.com/drive/folders/1ZSqc\\_k2R-l99uTyu0H3ryTbKJMOj6sq0?usp=sharing](https://drive.google.com/drive/folders/1ZSqc_k2R-l99uTyu0H3ryTbKJMOj6sq0?usp=sharing)

**dataset2-master.zip** folder:

This .zip file is the original folder extracted from Kaggle. It has the dataset of the project which is included in the folder named “**dataset2-master**”. Inside this folder there is another folder named “**images**” which contains two folders:

- **TEST:** Contains the Testing .jpeg images classified by class.
- **TRAIN:** Contains the Training .jpeg images classified by class.

These folders were used to train and test the images used in the White Blood Cells classification algorithm.

**h5 files** folder:

- Contains the file named “**WBC\_data.h5**” which has the arrays: the x\_train, x\_test, y\_train, y\_test from the dataset.
- Contains the file named “**Inception\_data.h5**” which contains the arrays for the predictions from the inceptionV3model, and test dataset and labels.
- Contains the file named “**best\_model.hdf5**” which contains the best model for the customized inceptionV3.
- Contains the file names “**AlexNetHDF Model Read & Accuracy Chart.pdf**” which is a copy of the job run on the cluster and “**accuracy\_curve.png**”. The hdf5 at ‘/home/dluser23/AN\_best.hdf5’ was too big to be able to attach it to the drive. You may still access it as the admin. After several efforts to code and compress, and then to decompress and read, we were not able to get a readable file. Therefore the run report is also present for your perusal.

**Hyper-Parameter Optimization** folder:

This folder contains the results from the hyperparameters optimization algorithm for the two models.

There are two .csv files and two folders:

- **Permutations\_model\_1.csv** : Contains the permutations performed by the scanning section of the model 1. In total there are 25 random sampling permutations.
- **Permutations\_model\_2.csv** : Contains the permutations performed by the scanning section of the model 2. In total there are 57 random sampling permutations.
- **Talos\_random\_tuning\_model2** : Folder that contains the .json and .h5 files with the best architecture for the model 1.
- **Talos\_random4\_tuning** : Folder that contains the .json and .h5 files with the best architecture for the model 2.

**Blood\_cells\_processing\_v3.py**: code file

**Presentation Record.mp4** : Our recording video on the drive:

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