**Report**

**Motivation**

My motivation has been an opportunity to gain an internship and job offer at an esteemed company where I will be assured of my future, get a good compensation, growth environment and be respected.

**Abstract**

I tried to use two types of models and tried tuning them for different parameters. First one was a simple one, sequential model of multiple CNNs and second I tried the popular Unet model as been referred to me by the task document.

**Introduction**

I tried functional api of keras to implement Unet architecture.

**Data Analysis/Preprocessing**

The analysis necessary was that some images were of different sizes so they needed to be resized. Also splitting was also needed. The “desktop.ini” file was also to be handled.

**Model Architecture**

Functional API keras + Unet did the job.

**Exprimental setting**

I used kaggle as a platform (private mode not made the data public) which helped me by providing free gpu computation.

**Results**

I tried two Unet architectures where I found the simpler one performed nearly the same will a will lesser size of the model (less no. of trainable parameters).

**Key findings**

The skip connection in Unet is performs miracle.

**Future works**

In future data augmentation could be tried and hyperparameters can be tuned.