
# SLIDING WINDOWS AS DATA AUGMENTATION ON HISTOPATHOLOGY IMAGES FOR CNN TRAINING

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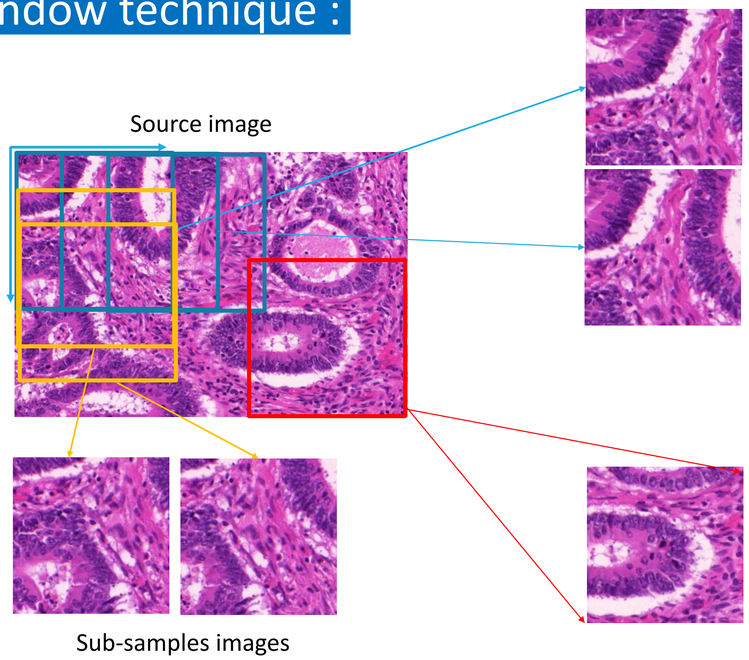
## Motivation

- ❖ (CNN) requires large amounts of data for the learning process. On the other hand,
- ❖ The availability of medical data is one of the issues especially for the training process using CNN.
- ❖ This study will apply sliding windows to obtain data sub-samples on histopathological images.
- ❖ A total of 83 original data with dimensions of 775x522 were used in this study.

## Sliding window technique :



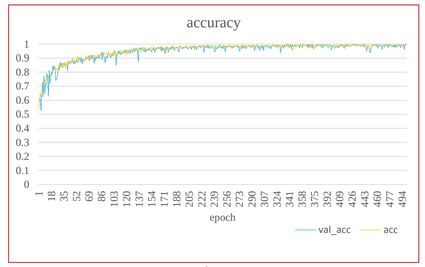

**Result : 224 x 2224**

- ❖ 3898 training images
- ❖ 1702 validation images

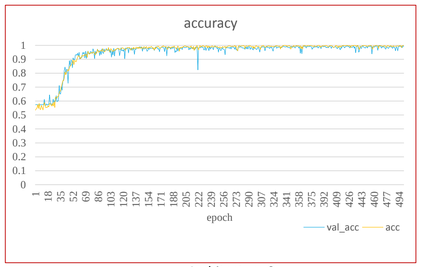
Augmentation

CNN

## .:: Graphics of accuracy ::.

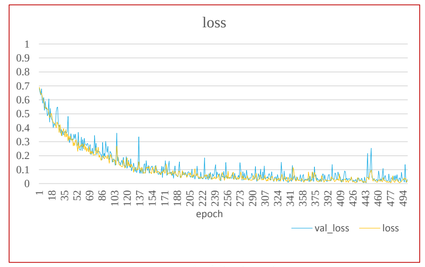



Architecture 1

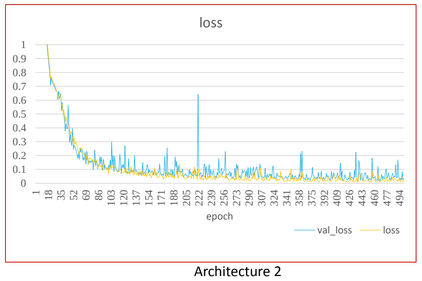



Architecture 2

## .:: Graphics of loss ::.




Architecture 1




Architecture 2

## Conclusion

- ❖ Sliding windows can be implemented to produce histopathology dataset required for CNN