The use of neural networks for medical applications has increased in recent years [1], [2]. With newer and more interesting applications being developed, such as the use of generative adversarial networks for the reconstruction of histological images [1].

Segmentation and object detection was the third most popular task with almost a 3-fold increase between 2018 and 2022 [2]

Due to the large size of the wsi histology images, a compression must be made to increase the efficiency and reduce both the storage size and inference time of neural network models [3]. It has been shown that downsampling of 16x can actually improve the precision of object detection models while slightly lowering recall on renal WSI histology images [3] with the optimal downsampling being at 8x. It has also been shown that compression is a available option for further downsizing the high resolution images [3] with an optimal rate of 40%.

glass histology slide into a Whole Slide Image

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