

# **Cloud Removal from Satellite Multispectral using Edge Filtered McGAN**

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We propose a Generative Adversarial Networks (GANs) based architecture for cloud removal from satellite imagery. Data used for training comprises of visible light RGB and near-infrared (NIR) band images. The novelty lies in the structure of discriminator in GANs architecture. We propose the discriminator to compare generated and target cloud-free RGB images concatenated with their edge-filtered versions. The motivation behind this approach is that such a discriminator drives the learning of the generator towards better identification of objects covered by clouds. In the experimental results, we compare our method with the benchmark solution, and demonstrate that our approach is superior in performing cloud removal for various cloud intensity levels.