Forest Ecosystem Solutions: Forest Ecosystem Analysis

With the growing occurrence of natural disasters such as wildfires and dwindling natural resources, tracking the development of British Columbia's forests is of increasing importance. The purpose of this project is to be able to identify and classify human and natural disturbance, such as roads that may not be mapped, cut blocks, locations of past forest fires, etc. with higher accuracy (greater than 90%) and consistency than human classification. By automatically identifying these, it provides a great benefit in terms of efficiency to technicians in the forestry and resource industries as manual classification is a time intensive task. This furthers the progression in environmental tech, is a step towards using AI to bring change in preserving and protecting the environment. In order to accomplish this goal, zone classification techniques will be used. In this case one small window is convolved across the image on pre-defined locations with low overlap between contiguous positions. Currently, a k-means clustering classifier has been implemented with plans for a more complicated convolutional neural network.