

In the world of machine learning, a new technology called video segmentation has rapidly been gaining advancement. This method uses deep learning, a subset of machine learning, in order to identify objects in a video, segment them (or separate them from the rest of the video), and then track them throughout the video. This has universal applications in many different technologies like self-driving cars, surveillance, and even medical testing. The question to be answered for this project was that can we create a data pipeline in order to segment large amounts of video data using a generalized deep learning method. Finding generalized deep learning methods was the first step. Different methods were found and then compared and tested against each other to find the most effective method. A data pipeline was then created to be able to process large amounts of video with these generalized methods. The expected results are that the data pipeline will work as intended and be able to segment large amounts of video data with high throughput. These results will be able to provide a tool for other researchers in order to allow them to segment videos effectively and efficiently without having to hunt for different software or segmentation methods, or even go through unnecessary installation and usage instructions which may be hard to understand. If this pipeline proves to be successful then it can be a revolutionary tool for researchers and data analysis using video segmentation.