

UNIK 4690 Computer Vision Project

The Magic Greenscreen

Joseph Knutson & Jacob Alexander Hay

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Abstract

Introduction

Green Screens, are used in movies, series, news, video-games and home-made videos with the main reason of providing an artificial background. The technique requires an approximately monochrome and plain background (often green) to be placed behind whatever is wanted in the foreground (often a person). When the green screen is placed, a technique called Chroma Keying is applied in order to map where the plain green surface is. When the location of the green pixels are known, a CGI, Computer Generated Image, is mapped onto these pixels, making it seem like the person is standing in front of whatever is put in the back.

Our algorithm provides a Green Screen tool, without having to place a Green Screen inside the scene. Our course has taught us complex, color based segmentation methods, but as people's backgrounds vary, colour based segmentation is not an option.