



# TECHNOLOGY WHITE PAPER

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Personify Inc. | [www.personifyinc.com](http://www.personifyinc.com)

## Introduction

ChromaCam is an AI-based webcam application that enables users to create their own video presentation space without a green screen. Upload your own images to replace the background or apply a blurring filter to cut out the visual noise, boost productivity, and secure the privacy. ChromaCam is perfect for video conferencing, online learning and streaming. Furthermore, the ChromaCam AI is directly applied on the user's device and no video data is sent to Personify's server, enabling a truly private service.

## Features

### **Enhancing the way you connect**

Create your personal video presentation space with the built-in webcam app, without a green screen.

### **Ensure privacy and secure video call**

Ensure privacy, boost productivity for video call, online sales, online learning delivery.

### **Immersive video presentation**

Seamlessly interact with content with body language to promote interaction and enhance communication.

### **Anytime, Anywhere**

Always be ready to impress regardless of your location or background

### **Branding through video conference**

Customizable backgrounds and logos for branding your video calls.

### **Stream to the audience**

Dynamic green screen technology allows users to join your real-time game stream.

## Application Compatibility

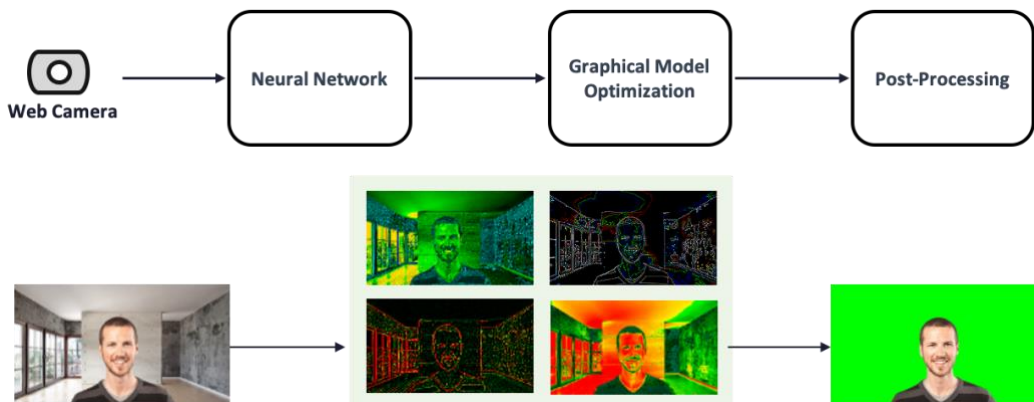
ChromaCam can seamlessly integrate with all the leading video chat applications, including Skype, Zoom, WebEx, Google Meet, Hangouts, Microsoft Teams, and GotoMeeting.

ChromaCam is also perfect for streaming without green screen on platforms such as Twitch, XSplit, OBS and Gameshow. Simply choose ChromaCam in the camera settings and let the magic happen.

## Core Technology – Dynamic Green Screen

ChromaCam uses sophisticated computer vision and machine learning techniques behind the scene, called dynamic green screen technology, to determine which pixels in the video feed belong to you and which belong to the background.

There are several emerging background removal applications in the market. However, Personify is a proven technology leader in the field, with more than 20 patents on the segmentation technology. It took years of development to improve the algorithms and maximize performance and experience. The team has significant expertise in artificial intelligence and machine learning, computer vision, GPU programming and a deep understanding of video. ChromaCam ensures top performance of technology by feeding a large data set to accurately recognize head, shoulder, hands, and even fingers, during background removal. In real time, users are able to move freely and dynamically in various settings, on comput-limited devices.



*Fig.1 Core segmentation architecture of ChromaCam*

## Tips for Better Background Removal

The two most important environmental variables are lighting and background. Ensure your environment is generally well lit for better quality, but studio quality lighting or bright lights are not required. Make sure to keep your background simple or having objects right behind that match your hair color.

## Background Image Format

ChromaCam supports all PNG, JPG, JPEG and BMP file formats. The maximum image size is 4K (W 3480 x H 2160). There is no file size limitation and there is no limitation and the amount of custom background you can add to the image list.

## System Requirement

- Processor: Intel 6<sup>th</sup> generation i5 quad-core or higher, except u-series; Intel 4<sup>th</sup> generation i7 quad-core or higher (or the AMD equivalent) which supports the AVX instruction set. Any processor with a logical core of 8 or higher and frequency of 3.0 GHz or higher
- GPU with Open CL 1.2 support
- Operating System: Windows 7, 8, 10, MacOS Mojave (any release higher than 10.14)
- Memory: 4GB + RAM
- Supported cameras: any RGB webcam (embedded PC camera)
- ChromaCam is compatible with any webcam, PC and Mac OS. but with recommended specifications, users can experience the best background replacement.

# Pricing

## Lite Version

Free

Virtual Green Screen

Limited Background Blur

Limited on FPS (Frames per second)

Standard Images Backgrounds

ChromaCam Watermark

Suitable for occasional video call users

## Pro Version

\$24.99/annually

Full Background Blur

High Resolution Video Quality

Custom Backgrounds & logos

No ChromaCam Watermarks

Support PowerPoint slideshow upload

Twitch bot and streaming effect

Suitable for regular video call & streaming users