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**MaskNet: Occlusion Invariant Face Recognition  
for Face Mask Occlusions**

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## Abstract

Computer vision is the field that attempts to gain an understanding of visual context to infer something about the world using an observed image or visual data. It is one of the most important components of artificial intelligence and helps to effectively solve many complex real-world problems. “MaskNet” systems are built with the aim of masked face recognition and abstracting the complexities involved in problem-solving of the underperformed system due to face mask occlusions. This dissertation is a result of the project to build a robust face recognition system that recognizes faces while wearing a face mask. The developed system, MaskNet, works by making use of the knowledge of deep learning and computer vision. The promising combinations and settings of algorithms, preprocessing, evaluations and different techniques are taken to build the most effective algorithm to robust recognition of face while wearing a face mask. It is available as a complete system and interactions with the user from the graphical interface that provide to system capabilities of a face recognition system with the capability of identifying masked faces.

Keywords: Deep Learning, Face Recognition, CNN, Occlusion Invariant Face Recognition