



Demo: Scalable, Person-Agnostic Deepfake Detection In the Wild

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Abstract

We introduce a web service that helps fighting visual misinformation known as "deepfakes". A deepfake is a video containing a talking head, artificially manipulated in a hyper-realistic way using powerful AI tools. The rise of deepfakes calls for media forensics solutions that work reliably on videos and produce a low rate of false alarms at the video level. We present a web service offering a new way to assess if a face video has been manipulated. The web service relies on an engine for deepfake detection following our current research direction on video-based face manipulation detection. The research direction paves the way for achieving scalable, person-agnostic deepfake detection in the wild.

The Deepfake Detection Web Service allows the user to upload a short video. The video will be processed in background using our deepfake detection engine. The user will be then notified, being able to review the detection output superimposed over the original video. The Deepfake Detection Web Service keeps track of a history of previously processed videos so that they can be easily inspected if need be. It also offers a user management system allowing users to privately inspect their own videos.

[A] Ekraam Sabir, Jiaxin Cheng, Ayush Jaiswal, Wael AbdAlmageed, Iacopo Masi, Prem Natarajan, "Recurrent Convolutional Strategies for Face Manipulation Detection in Videos", CVPR 2019 Workshop on Media Forensics

[B] Iacopo Masi, Aditya Killekar, Royston Marian Mascarenhas, Shenoy Pratik Gurudatt, Wael AbdAlmageed, "Two-branch Recurrent Network for Isolating Deepfakes in Videos", ECCV 2020

Demo Videos and Material

- [Demo of Our DeepFake Detection System](#)
- [10 minute technical presentation](#)
- [ECCV 2020 paper on arxiv](#)