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EUROPEAN UNIVERSITY
OF TECHNOLOGY

ATHENE
National Research Center
for Applied Cybersecurity

– Master Thesis –
Detecting AI generated surveillance footage

da/sec

da/sec is the biometrics and security research group and is affiliated with Hochschule Darmstadt and the National Research Center for Applied Cybersecurity (ATHENE). The group is led by Prof. Dr. Christoph Busch and Prof. Dr. Christian Rathgeb. The focus of the group is on highly innovative and applied security research in the special fields of biometrics. Read more on www.dasec.h-da.de.

Motivation & Goal

In the last few years AI generated images and videos have become increasingly realists and consequently used to spread misinformation. For videos content mimicking source where viewers expect low quality and artifacts such as CCTV, dashcam, or bodycam can easily be used to trick people and create fake news. Meanwhile, deepfake detection methods are lagging behind and are unable to accurately detect content generated with the most recent methods or that has been slightly altered in term of image quality. The goal of this project is to propose a more resilient detection framework by leveraging existing approaches.

Tasks

- Evaluate current state-of-the-art approaches
- Identify their strengths and weaknesses
- Propose a framework leveraging the strengths
- Evaluate the proposed framework

Requirements

- High motivation, Interest in generative models
- Strong interest in research
- Good programming skills in python

By Date

Immediately / by appointment

Contact

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