

# FAKE FACE DETECTION IN THE DIGITAL IMAGE

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## ARE THEY A THREAT?

Try to guess deepfake images (correct answers are at the bottom)

## HOW TO CREATE DEEPFAKES AND PREVENT MISUSE?

- Creation?
  - Apps
  - Websites
  - Public models
- Prevention?
  - Mentoring
  - Human detection
  - **Automatic detection**

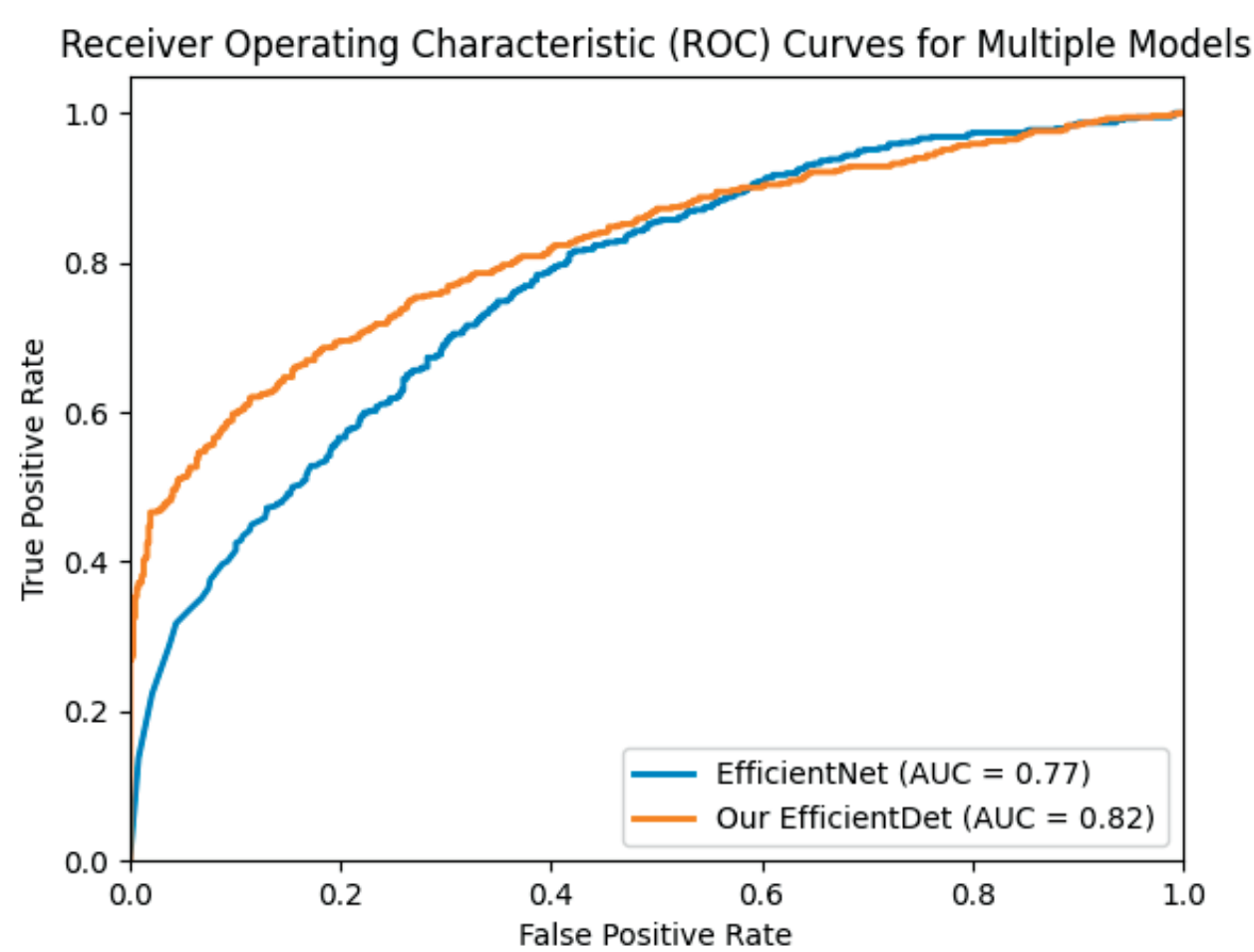
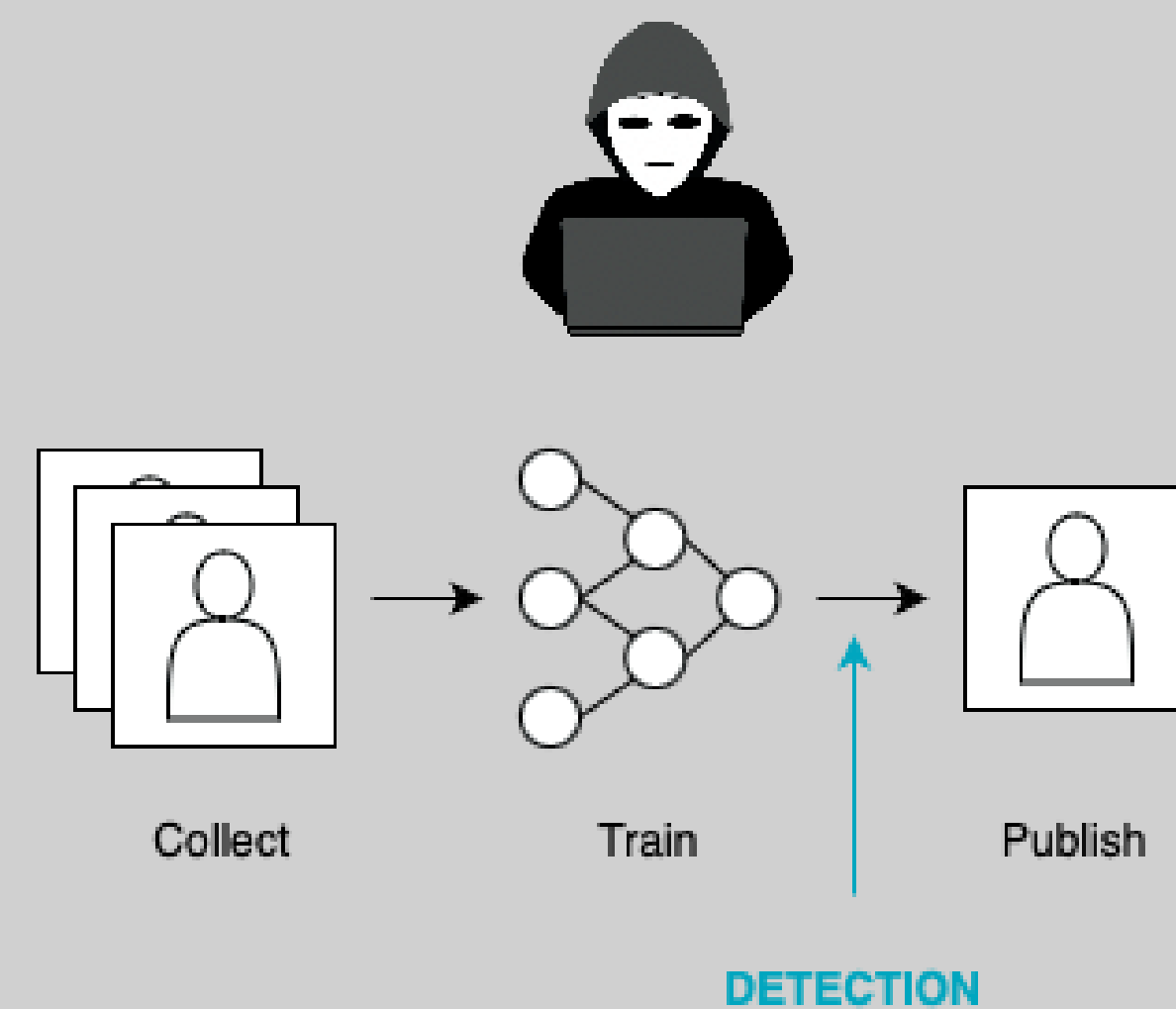
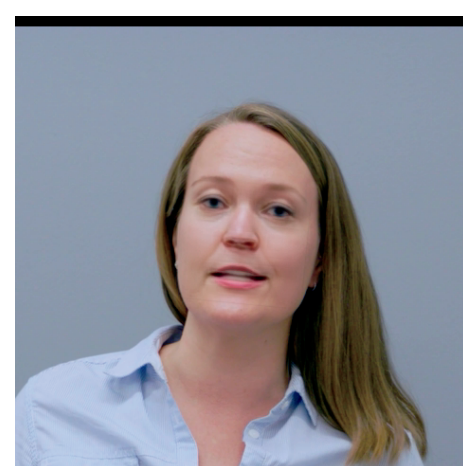
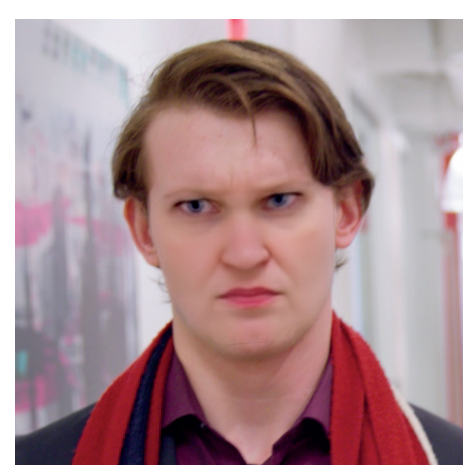


Figure 1: Results from trained models on Celeb-DF.



81.8% fake



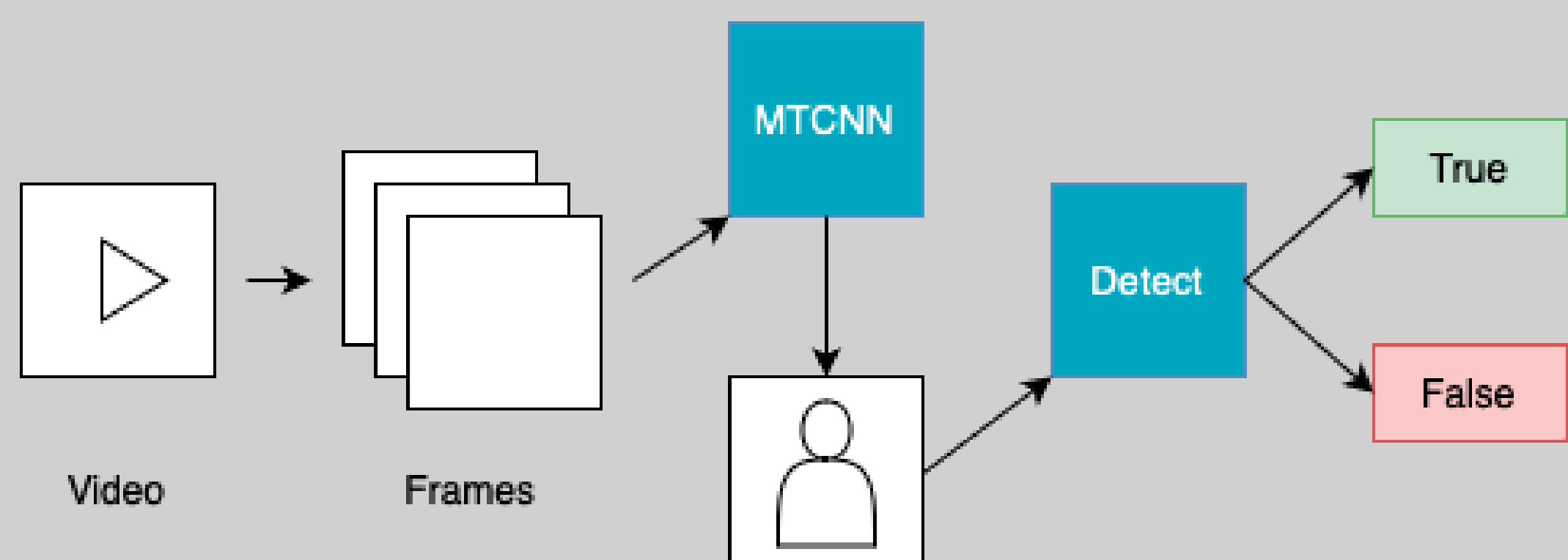
80.9% fake

## DETECTION USING NEURAL NETWORKS

- Research of existing CNN models
- Compare models
- Achievements:
  - Improved architecture for **detection**

## HOW ARE WE DOING IT?

- Extract frames from video
- Detect face in video
- Detection NN on every frame



Correct answers:  
RFFF  
RRFR

## FUTURE WORK

- Better datasets?
- Consistency in evaluation?
- Better understanding of NN?

Let's discuss!