Robust Algorithms for Morph Attack Detection

NTNU

Motivation

- Widespread availability of open source morphing tools has increased the potential of generating a high quality morphed face image.
- Morph face images have indicated a vulnerability of commercial face recognition software.
- Reliable detection of morphed face images can reduce vulnerability especially in high secure applications including border control.

Approach

- ✓ Quantifying noise due to morph generation
- ✓ Use of color textures
- ✓ Deep learning based approach.
- ✓ Feature difference method

Objectives

- To detect digital face morph attacks as well as after post-processing procedures such as printing and scanning.
- Development of novel techniques to detect morphs in no-reference morph attack detection in print-scan scenario.
- Impact of different image quality on performance of morph attack detection.
- Complementary face information to improve the performance of morph attack detection

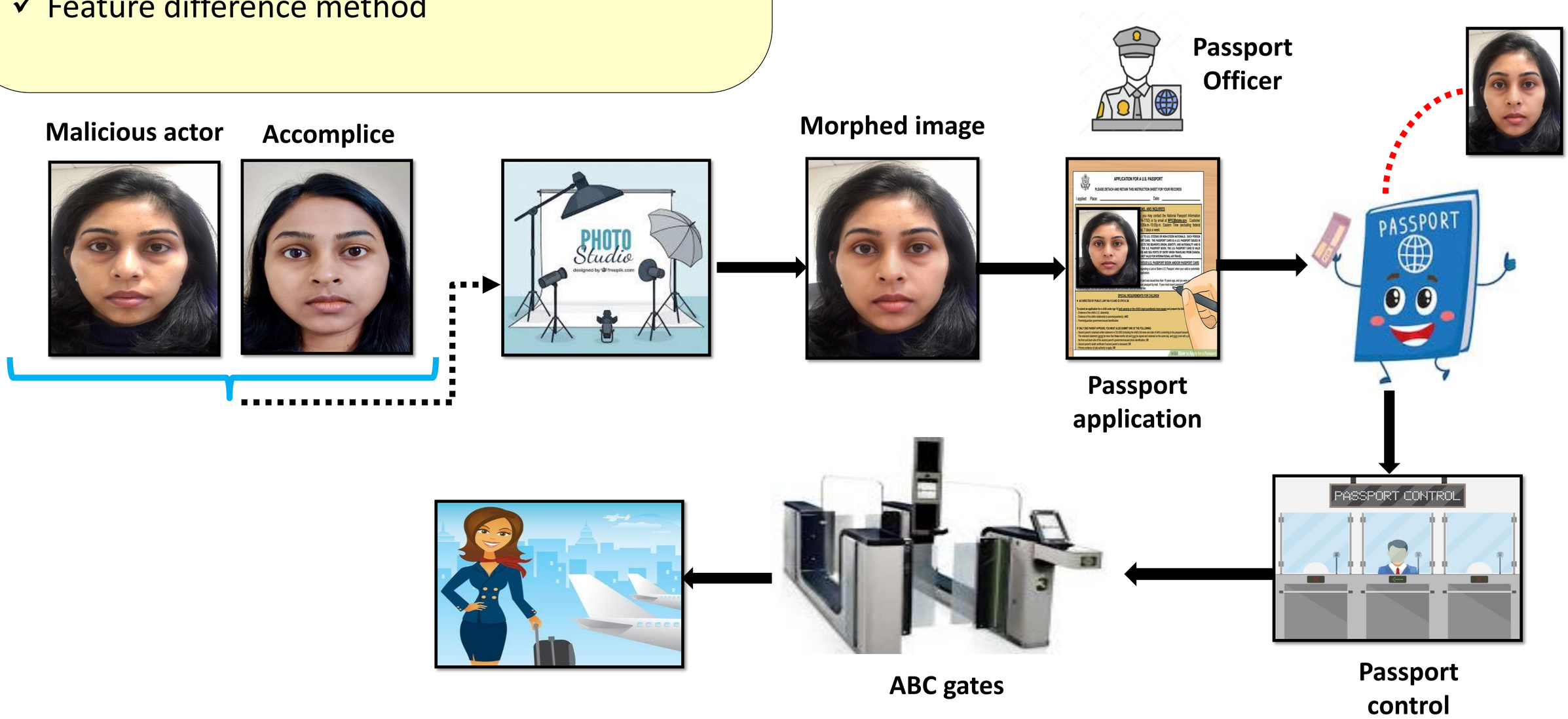

Fig 1: An example showing the vulnerability of morphed face in border control scenario.

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