Fingerprint Spoof Detection using Minutiae-based Local Patches

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Gummy Fingers



Printed Fingerprint Targets

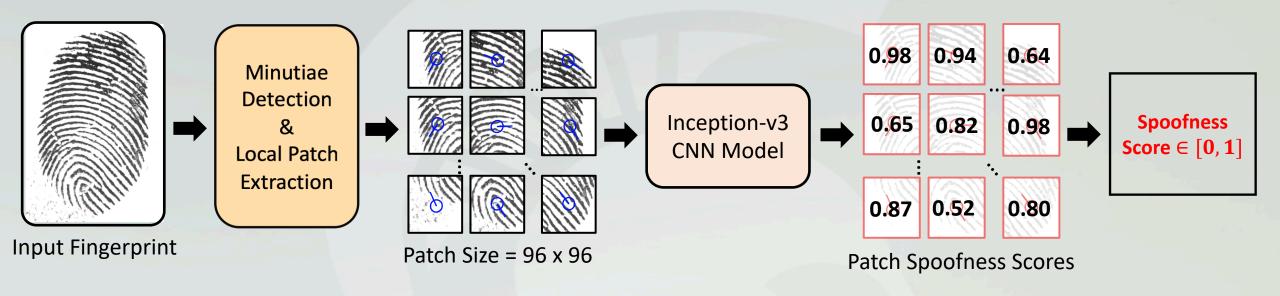


Altered Fingerprint



Cadaver Finger

Proposed Approach



- > Learn patch "texture" around minutiae
- > Robust to different fingerprint image sizes
- > Large amount of training data to train deep CNNs

Key Findings

- > Achieves state-of-the-art detection performance on LivDet databases
- > Avg. spoof detection time: 0.57s (Nvidia GTX 1080 GPU)

Which of these fingerprints are live?













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