

Master/ Bachelor Thesis

Classify NIR Iris on the move images based on Knowledge Distillation models

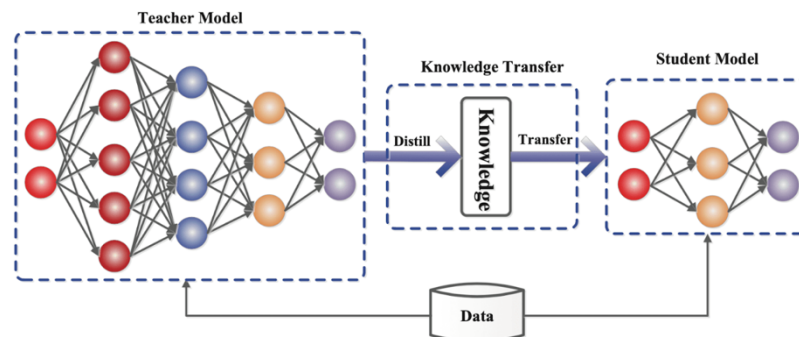
da/sec



Motivation & Goals

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

[Knowledge distillation](#) is used to compress a complex and large neural network into a smaller and simpler one, while still retaining the accuracy and performance of the resultant model. This process involves training a smaller neural network (Iris recognition on the move) to mimic the behavior of a larger and more complex "teacher" network (by learning from its predictions or internal representations).



Tasks

- Analyse the State of the art of KD applied to NIR iris images
- Train a KD model for Iris on the move.
- Evaluation and benchmark of manually labelled tagged images and automatic iris images.
- Evaluate iris recognition System

Requirements

- High motivation, interest in security technologies and biometrics
- Strong interest in research
- Good programming skills (Python) are one advantage.

Start / Period

Immediately / by appointment

Contact

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