

## – Master-/Bachelor Thesis – Synthetic Tattoo Generation

da/sec



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](http://www.dasec.h-da.de).

**Motivation & Goal**

In forensic investigations, tattoos are relevant features to identify subjects. Current tattoo recognition methods are based on deep learning and therefore require massive training data. The goal of this project is to create software for the synthetic generation of tattoos which could be used for training tattoo recognition algorithms. The created algorithm should then be used to create a large synthetic database. The realism of the dataset should be assessed with suitable metrics.

**Tasks**

- Design and implementation of synthetic tattoo generation
- Creation and assessment of synthetic tattoo database

**We offer**

- Incentives for the student to work on this project (work within scientific context, international collaboration, work on project in collaboration with companies)

**Requirements**

- High motivation and creativity
- Programming skills
- Good analytical skills
- Interest in biometric recognition

**By Date**

By now / by appointment

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