

## – Master-/Bachelor Thesis – Synthetic Identity Parade

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. C. Busch and Prof. C. Rathgeb. 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 identity parades, witnesses are comparing the identity of a suspect to those of random subjects. To obtain high-confidence decisions, police must find random subjects that exhibit similar properties compared to the ones of the suspect. The goal of this thesis is to automatically generate synthetic random subjects with similar demographic attributes, accessories and capture scenarios.

**Tasks**

- Development of software for synthetic data generation, e.g. based on diffusion models.
- Evaluation of software with human examiners.

**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

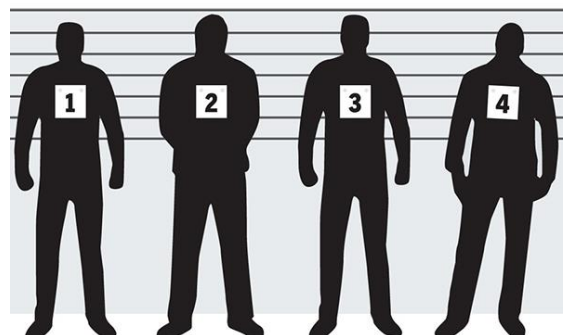
**By Date**

By now / by appointment

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