



– Master-/Bachelor Thesis – Generation of Synthetic Children Faces

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.

Motivation & Goal

GANs have shown impressive results for the generation of synthetic images including faces. This proposal offers the possibility to create training data for face recognition. While face recognition algorithms are usually designed for elderly subjects, automated face recognition for children has many important use-cases, e.g. analysis of child pornography. The goal is to generate an appropriate database of children face images and measure their performance using state-of-the-art face recognition systems.

Tasks

- Generation of synthetic children face database using *Generative Adversarial Networks* (GANs)
- Evaluate the performance on a state-of-the-art face recognition system



We offer

- Incentives for the student to work on this project (work within scientific context and in close collaboration with researchers)

Requirements

- Interest in biometric systems and computer vision
- High motivation and creativity
- Analytical and programming skills

By Date

By now / by appointment

Contact

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