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HOCHSCHULE DARMSTADT
UNIVERSITY OF APPLIED SCIENCES

fbi
FACULTY OF COMPUTER SCIENCE

CRISP
Center for Research
in Security and Privacy

– Master-/Bachelor Thesis –
Single Image Super Resolution for Face Recognition

da/sec

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

Motivation & Goal

In the recent past different researchers demonstrated the feasibility of creating high quality face images from low quality face images, in particular by using deep learning. It is of interest whether these methods enable the application of face recognition is unconstrained scenarios where only low quality images are available.

The goal of this project is to benchmark different face recognition systems on low quality face images before and after the application of different open-source single image super resolution methods.

Tasks

- Creation of low-quality face database
- Application of available super resolution techniques
- Evaluation of face recognition systems on the created 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)
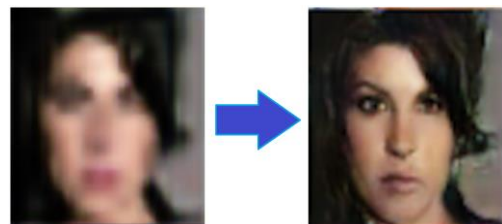
Requirements

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

By Date

By now / by appointment

Contact

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