Social Cognitive Systems Group
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Universität Bielefeld

CITEC
Cognitive Interaction Technology
Center of Excellence
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Real Smile | Fake Smile

Project or Master's thesis – Real or fake?
A generative model for smiles

About:

We have an existing self-supervised generative model based on a Predictive Processing hierarchy. Your job is to make use of the existing model's learning procedures to learn facial features for smiles and classify them as real or fake.

Task:

- Make yourself familiar with the existing model implementation, which is based on Predictive Processing and the free energy principle

- Make use of corpora for facial expressions to train the model

- Train hierarchies for multiple facial features

- Merge the features in order to differentiate fake from real smiles

- Evaluate the model's performance

Requirements:

- Programming experience (preferably Python)
- Experience with Bayesian modeling
- Affinity with all things brain related (Cognitive Neuroscience, Cognitive Science)
- Experience with processing image data

Ansprechpartner:
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