



Thesis: Evaluation of Deep Learning Approaches for Efficient Facial Analysis on Embedded Systems

Already disappointed with your Amazon Alexa? We create empathic human-machine interaction!

Deeply enables smart devices to see and understand the user. So that your mobile devices or digital assistants can interact empathically. In totally new way, because we have a deeper user insight than what is possible today. What makes us special – our performance on embedded solutions. We create innovation with passion and work in an exciting environment with industry leaders.

We are looking for you:

With the use of facial analytics, we take a simple 2D camera output to understand who's around, where, attention, age, gender, and even emotions. The current approach employs Boosting methods to train highly efficient look-up-table classifiers. The goal of this thesis is the evaluation of deep learning approaches for facial analysis regarding learning performance and resource efficiency on embedded systems.

Do you want to...

- ... elaborate on current deep learning approaches for facial analysis (gender, age, emotions)
- ... assess implementation possibilities of promising approaches
- ... select available data sets for training and develop an evaluation procedure
- ... port your approach to an embedded system, such as Raspberry Pi

What you should bring...

- ... motivation for independent and goal-oriented project work
- ... good knowledge of C++ (especially C++11)
- ... first experience in deep learning and deep neural networks
- ... ideally experience with frameworks like Tensor Flow or similar and emotion recognition

What we offer...

- ... use of cutting edge technology to take human-machine interaction to the next level
- ... startup atmosphere: Flat hierarchy, friendly atmosphere, possibility to learn new technologies & shape the project
- ... opportunity to stay as working student/full-time employee
- ... all the snacks & coffee you want! :)

If that sounds interesting, send us an E-mail including your CV and a short description of your project experience to career@deeplyapp.de.

We are looking forward to getting to know you!

