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Hovedprosjekt i data/informasjonsteknologi v/ Oslomet

Oppdragsgiver

Huddly AS
Karenslyst Allé 51, 0279 Oslo
https://www.huddly.com/

Kontaktpersoner

Elena You
Data Scientist
+47 951 15 781
elena@huddly.com

Espen Wøien Olsen
Data scientist
espen@huddly.com

Gruppemedlemmer

Eskil Gaare Høstad, s331380
97424340
eskilgh@gmail.com

Jonathan Colbjørnsen Kjølstad, s321399
91625227
jonathan.kjolstad@gmail.com

Project description

The project entails developing software that uses deep learning to
classify gestures, for use in communication with other participants and/or camera functions.

Examples of this can be:

- Raise hand (voting in polls, speaking queue, signify demand for attention etc.)
- Thumb up/down (like/dislike etc.)

A multitude of research has been done on this field already, and it is expected that the project will make use of this. As such the plan is not to implement anything 'from scratch', but rather to rely on existing ML-models.
Huddly hopes that this project will allow us to gain insight in new interactive functions that relies on video image over manual functions, that could provide more flexibility and convenience for communication through remote video.

Technical requirements

The students should train and test a working machine learning/deep learning model that can run on a live video. The functions related to the gestures they choose should be implemented in a working demo, only required to work locally. Students will be provided with a Huddly IQ wide-angle camera, and are free to choose what platforms and OS they use.
The recommended software tools are Python 3.6+ and well-documented libraries connected to Python 3.6+. This is to express that the task has been solved in a methodological and academic manner, and proving the students general insight of methods to solve such tasks.
Recommended libraries are Keras, Tensorflow, Numpy, opencv, (amongst others)

About the client

Huddly combines hardware, software and AI to create intelligent vision products for everyone who uses video to collaborate.