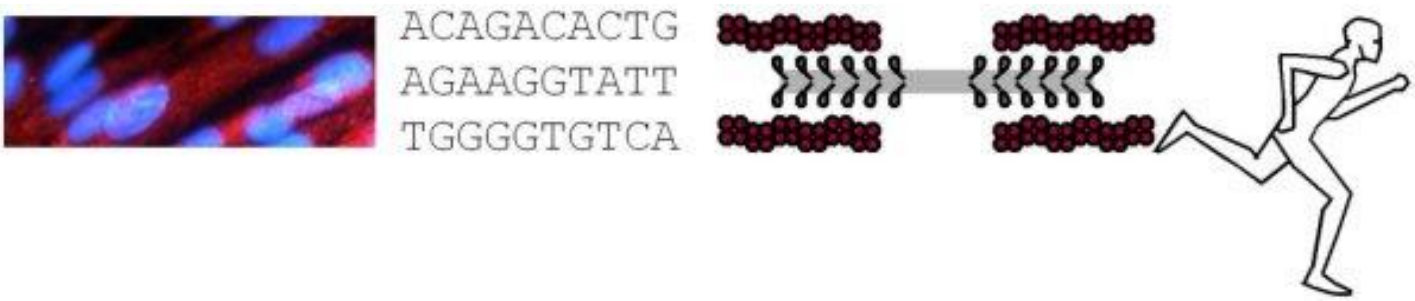
Lehrstuhl für Sportbiologie
Fakultät für Sport- und Gesundheitswissenschaften
Technische Universität München



Detection of daily life activities with in-ear sensor measuring accelerometer data

Cooperation project of the company cosinuss and the Chair Exercise Biology (TUM)

Master thesis in sports science

Start: as soon as possible

Project description
In this project, we would like to convert our Cosinussº One in the perfect tracker, giving us more information than our daily steps. The main purpose is the detection of daily life activities, such as standing, sitting, cycling, walking, running or driving using 3D-accelerometer data with an in-ear sensor.

Main research questions:

- Is it possible to detect cycling or driving with accelerometer data?
- Which is the best approach of machine learning classifier?
- Which are the best features to detect these activities?

Before starting with the classifications, new experiments are required to be performed for data extraction. Therefore, a preparation of an adequate experiment for every activity must be designed and performed.

Requirements
Interest in the detection of activities.

Interest in machine learning.

Supervision
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