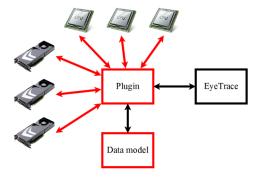


# EyeTrace CUDA extesion

### **Description:**

Nowadays large amount of gaze data require more computation power for real time data evaluation and visualization. Modern GPUs have this capability and if present should be used for this task.



## Task:

EyeTrace is a software for gaze data visualization and analysis. Due to the increasing amount of data these visualizations need more computation time. In this thesis existing visualizations should be implemented using CUDA for GPU computations. Additionally this includes a data storage model making it possible to shift the data between the GPU and the host computer.

Due to the fact that nowadays not all computers have a CUDA capable card the modul should also allow CPU computations. This should be determined automatically by the module.

## **Requirements:**

Knowledge or interest in GPU programming (CUDA).

### Supervisors:

### Thomas Kübler, Wolfgang Fuhl

Perception engineering Prof. Dr. Enkelejda Kasneci Sand 14, Raum C206 thomas.kuebler@uni-tuebingen.de ⊯ wolfgang.fuhl@uni-tuebingen.de

Stand 2. November 2016