



## Hilfsassistant Job at the Computer Graphics Lab

# Investigating user knowledge changes in a math tutoring system



#### Overview

Do you want to improve your machine learning skills and earn money at the same time? We are looking for a Hilfsassistant on the master or bachelor level to help us analyse a data set using machine learning techniques that we collected with the math training software Calcularis.

Math skills are very crucial in today's society. However, in Switzerland as in most European countries, 3-6% of the children are suffering from developmental dyscalculia, a learning disability affecting the acquisition of arithmetic skills. Over the past years, our lab in collaboration with the company Dybuster developed a computer-based learning environment (Calcularis, screenshots above) that provides personalized math training for children. Studies showed that Calcularis was able to significantly improve the math abilities of children with or without dyscalculia.

For this project you will be analysing a data set of children training with the system. The goal is to better understand how the knowledge of students changed over the course of the training.

### **Duration**

6-8 man weeks. 100% preferred, but also possible to work part-time. Start as soon as possible.

#### Qualification

- Must be a candidate for bachelor or masters degree in a computer engineering field
- Good programming skills in Python, Matlab or Java
- Knowledge in machine learning, data mining and/or statistics is a plus

#### Contact

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