Student assistant wanted for machine learning tasks with Brain-Computer Interfaces

Just what is BCI anyway?
A Brain-Computer Interface (BCI) makes use of machine learning methods, to decode ongoing brain signals. Via BCIs, users can type text or control a computer or wheelchair - even if they are severely motor impaired.

Who are we and what is our research topic?
We are a young group of researchers in the Albertstraße. Our team consists of students from computer science, psychology, cognitive science and we cooperate closely with the university clinic Freiburg. We are convinced that BCI systems are usable for far more neurotechnological applications than communication and control. Therefore, we introduce BCI into, e.g. stroke rehabilitation, and research machine learning approaches to decode brain states in order to improve the rehabilitation. We additionally research how we can improve neuro ergonomy of interfaces between humans and technology. For this, we need to analyze brain signals and develop suitable BCI applications, which are tasks you would support us with.

Who are we looking for?
Ideally a master student with a background in computer science or a different topic that has a strong focus on programming and/or machine learning. You will mostly be working with MATLAB and python in the area of machine learning, signal processing and data analysis. Additional skills (e.g. Android/Java) are welcome but not crucial.

Then what are your tasks?
You support our lab by:
- Analyze EEG and other brain signals
- Implement/adapt machine learning methods
- Development of BCI applications

You think you will fit?
Dr. Michael Tangermann
www.bsdlab.uni-freiburg.de
bsdlab.hiwibewerbung@blbt.uni-freiburg.de