

Alumni-Bericht von Marius K.

I've long been interested in the mind, and the relationship between mind and brain. Before almost choosing a standard electrical engineering career, I read about Cognitive Science and started to study it in 2009, the first year it was available in Tübingen. From the start, I was fascinated by the combination of computer science and neuroscience which enables all kinds of both useful applications and research opportunities.

So I went through the complete thing in Tübingen, Bachelor's and subsequent Master's degree. The MSc took a little longer because I went to Turku, Finland to research for my thesis on EEG correlates of happiness. I can definitely recommend going abroad for the thesis research! It was a great experience and you are exempt from the standard ERASMUS learning agreement which gives you a lot of freedom. I can recommend Finland only if you really like the winter, though... I also was a student assistant at the MPI where we worked with ALS patients, Moritz Grosse-Wentrup tried to create EEG brain-computer interfaces for them, which was both fascinating and frustrating, as it is difficult to pull off. I was a student assistant in other labs, too, Lewis Chuang, where I tested EEG in combination with an eye tracker, Andreas Zell, where I repaired the quadcopters that didn't quite fly autonomously, and Martin Butz, building up some neural nets in a simulator.

So another thing I can definitely recommend is to try and be a student assistant in many different labs, so you get a good feeling about the research environment. This, of course, is important only if you want to stay in academia, otherwise getting real-world experience in the industry would be the better option. But who wants to work if they can play and get money for it?!

With that being said, I didn't really know what to do afterward, because I felt like the research I had experienced thus far didn't excite me anymore but I also had no real alternative in my mind. Working at Daimler, which is the standard proposition in Tübingen, isn't really my cup of tea... Then I received an email by chance, by Klaus Gramann, who was looking for someone to work with EEG and multimodal data in mobile participants, a one-year contract. It was not meant to be a PhD position, but there was a subsequent option. So I was sold instantly, the perfect opportunity to get to know the group and see if I like the research before committing to a full PhD.

And here I am, five years later, doing the PhD stuff, and I am glad about it! I love the challenges of a new and emerging field (mobile brain/body imaging), which allows me to make use of both the computer science skills I got in Tübingen as well as the psychology and neurobiology parts. In hindsight, the programming and math stuff that was rather tedious at times is really the toolkit that makes my life much easier now and allows me to create necessary methodological advancements for the field.

In short, I'm working on squeezing as much signal out of the crappy EEG data we get from mobile participants, and then try to use it to understand the human in the context of the workplace, how can we measure workload, situation awareness, or mental focus for practical applications? The fact that I do my research in virtual reality is just the icing on the cake, as I love VR gaming and the connection of the technology of VR and BCI is just too cool to not try it.

I still don't know what will come after this. But this time it isn't because of the lack of options I find enticing - it is because I will have difficulties choosing one of the many great opportunities the world has to offer.

I really can't say how happy I am with the education I got by studying Cognitive Science in Tübingen. It fits like a glove to the world of VR-BCI, and that, in turn, fits to me :)

Do not hesitate to contact me if you have any questions or just want to chat!

Liebe Grüße,

Marius