Get to know Matin Fallahi

Interview + Transcription: Jennifer von Olnhausen

Scientist: Matin Fallahi

[smoothed transcription]

About the first question and how I was joining the chair:

I was in the last year of my master thesis, I always really enjoyed to be in the university doing research, so, I was looking for a PhD student (position - *editor's note*), I saw the Patricia (*editor's note*: Patricia Arias Cabarcos) PhD advertisement in the twitter. It was about brainwave authentication and application of machine learning in it. So, I had the background in security, I was interested in the machine learning and I was interested in using the python. I tried and send my CV and documents, and after that it was a kind of interview, and interesting thing is, that in the last part of the interview, the electricity gone, and we continued in the darkness. So, after a week, I got my acceptance. Finally, I joined the chair after a few months, because it was a visa process between the Iran and Germany.

About the topic of my research:

I'm working on the authentication. So, everybody do (!) authentication several times in the day, e.g. you use your smartphone, you use your computer, you log in your email and for all of them you have to do authentication to show who you are. Let's say, the first generation of password and authentication systems were based on characteristics and digits, so, you have to memorize some passwords. And after that you saw that it was a kind of like biometrics, like fingerprint and face detection that are currently common in your smartphone. But we think the next generation will be behavioral biometrics, like eye tracking and brainwaves that are more secure and have some interesting properties that could improve our daily life.

About the goal of my research:

I'm working on the biometric behavioral authentication, so, there is a lot of the research area in this topic, I have one project about multimodule authentication system based on the brainwaves and eye tracking. Also, I'm working to investigate the current state of the art in this area and see, 'what is the security and potential?' on one ability in the existing systems. And also we are working to improve some of the current systems that exist, in order to be more usable in the future.