Video script

Hi everyone!

The basic idea behind my project is quite simple: I wanted to find out how do students actually create and store their passwords and how can we improve our password habits. For this purpose, I designed an anonymous questionnaire and combined it with the zxcvbn password scoring system and HIBP leakage detection. And from this, I also extracted some suggestions that can help us improve password security in our daily lives.

During the analysis, I found that many seemingly complex passwords actually have a very common structure and low entropy; Most students reuse passwords frequently and still rely on memory, but they rarely uses password management tools. What alarmed me the most was that some passwords with high scores were actually not secure, which means that our understanding of "password security" might not be reliable.

For the entire project, I progressed step by step: firstly, I designed a concise questionnaire and received 28 valid responses. Then I wrote two Jupyternotebooks, one for testing password strength and another for checking for leaks. I also combined usage habits, ratings, and leakage situations to perform visualization analysis. Finally, I wrote a research paper and created a small tip poster, hoping to share these findings in a straightforward manner.

The most challenging part of the entire process was actually data analysis. On the one hand, when analyzing the strength of passwords, their reuse, and leakage situations, I need to truly transform the knowledge learned in class into an analytical framework. On the other hand, I had to produce convincing and in-depth content using a small sample. However, these challenges did indeed bring about real growth for me. The intense data analysis not only enhanced my ability to apply security theories, but also gave me a deeper understanding of the relationship between password security and behavioral security, and my research and critical thinking skills are also been improved.

Thank you for watching!