27 April 2020 Study · Mobile Security · AI

Similarity of Android Applications via Deep Learning

The full text is currently only available in the Deutsch version. A translation will follow.

Archived. This content is no longer updated. It remains available for reference.

Version 2020-04-24
Source https://technology2.a-sit.at/en/publications/similarity-of-android-applications-via-deep-learning/

In view of the unbroken popularity of applications for the Android mobile platform, there are numerous apps in the „App Stores“ which, according to the description, implement similar or identical functionality. In many cases, however, this description is non-existent, incomplete or simply wrong. This circumstance is particularly problematic when applications process sensitive data, access critical sensors or process data from users.

In the course of this project, we will use autoencoder, an approach from the „deep learning“ area, to analyze similarities in the description texts and the claimed permissions of Android applications. The goal is to better understand whether and to what extent applications are similar based on their description texts and whether Android apps with comparable functionality require the same permissions.