

This package contains the data collected for the empirical study described in the paper entitled ‘An Empirical Study of Vulnerabilities in Edge Frameworks to Support Security Testing Improvement’ authored by Jahanzaib MALIK ([jahanzaib.malik@uni.lu](mailto:jahanzaib.malik@uni.lu)) and Fabrizio PASTORE ([fabrizio.pastore@uni.lu](mailto:fabrizio.pastore@uni.lu)).

The package contains one CSV and one XLSX file (format of Microsoft Excel) with all the data collected to address our eleven research questions. Both files contain the same data, we provide the XLSX file to simplify sorting and filtering operations. Below, we refer to the column numbering provided by Excel.

In our data files, every row reports data about one vulnerability.

The data files have 184 columns from A-HJ. The presence of “1” in a cell indicates that the corresponding attribute (see column name) had been selected. We preferred to leave the columns empty rather than filling them with 0 to simplify reading. Moreover, each research question is separated with color for easy understanding. The columns in the files are described below.

The first column specifies an incremental number used to refer to the vulnerability. The next two columns provide the Edge Framework name (i.e., the framework to which the vulnerability belongs) and the component within the framework. Columns from D to G provide the links to the vulnerability descriptions appearing in either all or one of the databases considered in our study (i.e., *CVE*, *NVD*, *GitHub*). Column H reports the Date of the vulnerability report (based on the NVD/CVE database). Column I (Relevant) indicates if the report concerns a vulnerability and, therefore, is relevant for our study. Column J reports the “vulnerability description” appearing in the NVD/CVE database.

Column N, “*Included/Not Included*”, indicates if the vulnerability concerns Edge features and should therefore be included (1) or excluded (blank) from the study. Column O (“*Comment*”) includes additional details about our investigation.

The remaining columns present results for each research question, following the terminology used in the paper. Note that for research question three, columns BF-BJ are related to failure type, while columns BK to BM concern detectability.

In addition, files *ChiSquaredAnalysis.R* and *FisherAnalysis\_KubeEdgeVSMMainFlux.R* provide the commands used for the statistical tests in the paper.