Carnegie Mellon University
Software Engineering Institute

Jupyter/SiLK

JUPYTER/SiLK is a Docker image containing the System for Internet Knowledge (SiLK) analysis tools and the Jupyter Notebook user interface.

About Jupyter/SiLK

Jupyter/SiLK brings the power of the Jupyter Notebook project to netflow analysis with SiLK. With Jupyter/SiLK, you can easily upload network flow data, analyze it, and get results. It lets you create and share documents that contain live code, equations, visualizations, and explanatory text. Jupyter/SiLK provides a consistent, easy-to-use environment for accessing the SiLK analysis tools.

For more information

1. Docker image available at:
   https://hub.docker.com/r/certcc/jupytersilk/

2. Github repository available at:
   https://github.com/maheckathorn/jupytersilk

3. More information on Jupyter base image:
   https://github.com/jupyter/docker-stacks/tree/master/all-spark-notebook

Capabilties

Jupyter/SiLK contains the following SiLK analysis tools:

- SiLK (including PySiLK)

- Rayon

- netsa-python

In addition, the project is built on top of the Jupyter All-Spark-Notebook image and includes the following:

- Jupyter Notebook 4.3.x

- Conda Python 3.x and Python 2.7.x environments

- Conda R 3.3.x environment

- Scala 2.11.x

- pyspark, pandas, matplotlib, scipy, seaborn, scikit-learn pre-installed for Python

- ggplot2, rcurl preinstalled for R

- Spark 2.2.0 with Hadoop 2.7 for use in local mode or to connect to a cluster of Spark workers

- Mesos client 1.2 binary that can communicate with a Mesos master

- spylon-kernel

About the SEI

For four decades, the Software Engineering Institute (SEI) has been helping government and industry organizations to acquire, develop, operate, and sustain software systems that are innovative, affordable, enduring, and trustworthy.

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