Datasets for vulnerabilities detection in IoTs operating systems and applications

Anonymous for review

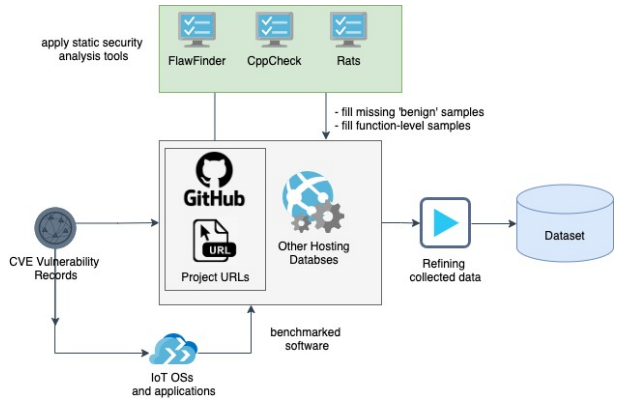

Figure 1: The proposed framework for vulnerability data collection

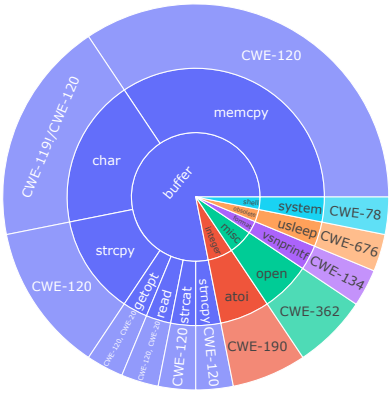

Figure 2: The sunburst chart showing the frequency of vulnerability categories, names and CWEs

ABSTRACT

TBA

KEYWORDS

Cybersecurity, Internet of Things, IoT security, Smart Environments, Machine Learning, Natural Language Processing;

ACM Reference Format:

Anonymous for review . 2023. Datasets for vulnerabilities detection in IoTs operating systems and applications. In *Proceedings of ACM Conference (Conference'17).* ACM, New York, NY, USA, **??** pages. https://doi.org/10.1145/nnnnnnn.nnnnnnn

1 INTRODUCTION

The Internet of Things (IoT) refers to the growing interconnected physical devices, components, vehicles and home appliances to the internet [**oracle2023:what**]. These connected devices exchange information to ease our day-to-day lives, business and industries. However, these devices continue to pose security issues and vulnerabilities over the years.

2 RELATED WORK

Al-Boghdady et al. [**al-boghdady2022:idetect**] have created a tool called iDetect for detecting vulnerabilities in the C/C++ source code of IoT operating systems (OSs). The labeling of the dataset was done using static code analyzing tools (SATs); Cppcheck version 2.1 [**cppcheck2.12021:tool**], Flawfinder version 2.0.11 [**dwheeler2021:flawfinde**] and Rough Auditing Tool for Security (RATS) [**rats2021:rough**].

3 THE PROPOSED FRAMEWORK:

4 DATASET ANALYSIS:

5 CONCLUSION AND FUTURE WORK

Conference'17, July 2017, Washington, DC, USA

ACM ISBN 978-x-xxxx-xxxx-x/YY/MM…$15.00
https://doi.org/10.1145/nnnnnnn.nnnnnnn

urls	count
http://www.securityfocus.com/	222
http://www.oracle.com/	177
http://www.securitytracker.com/	127
http://www.mandriva.com/	25
http://www.zerodayinitiative.com/	24
http://www.ubuntu.com/	14
http://www.vupen.com/	11
http://www.openwall.com/	6
http://www.exploit-db.com/	5
http://www.ibm.com/	4
http://www.ti.com/	3
http://www.lutron.com/	3
http://www.vmware.com/	3
http://www.gedigitalenergy.com/	2
http://www-01.ibm.com/	2
http://www.accuenergy.com/	2
http://www.telink-semi.com/	2
http://www.solarwinds.com/	1
http://www.fortiguard.com/	1
http://www.redhat.com/	1

Table 1: Summary of the top databases hosting vulnerability records of IoT OSs and applications