

JerryGamblin.com

Curiosity in Practice

2024 CVE Data Review

January 5, 2025 7999 Views

2024 brought unprecedented growth in CVE data, so I figured it would be appropriate to start the new year by exploring these statistics and highlighting some of the more intriguing data points.

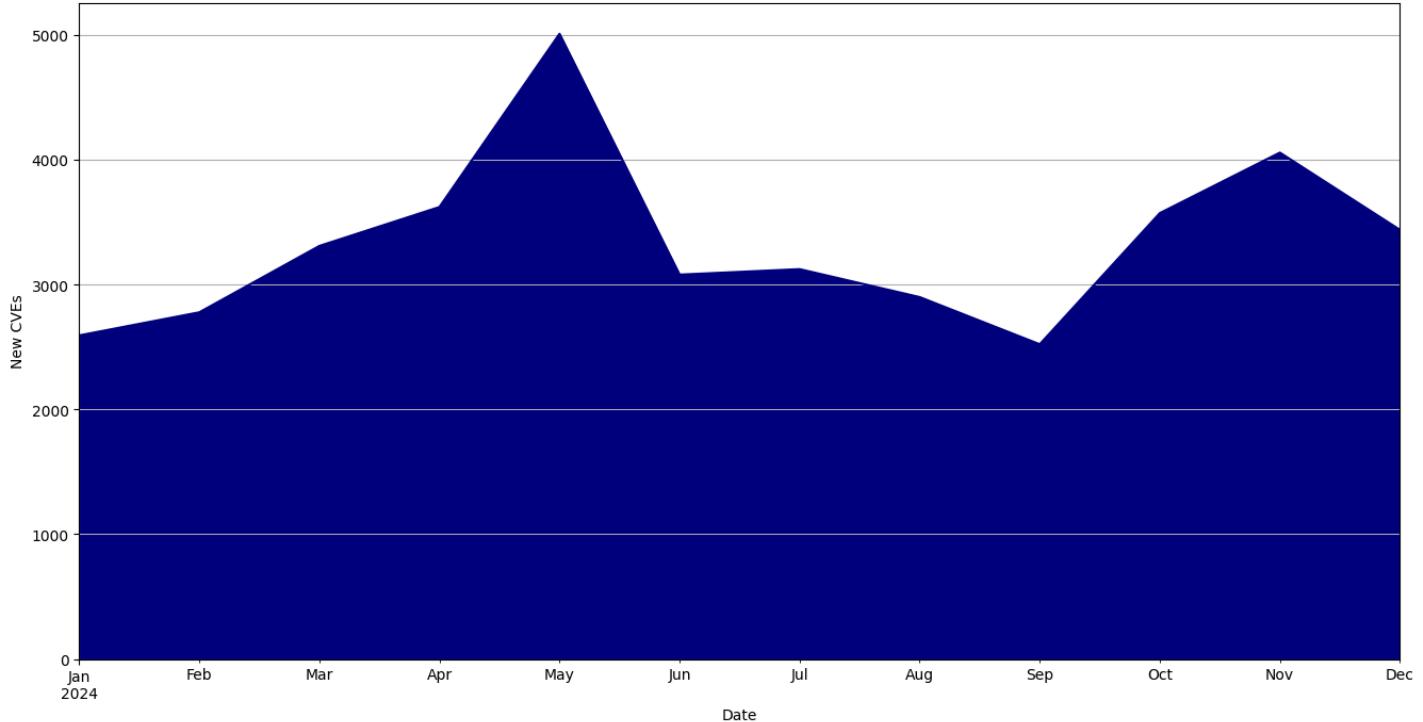
CVEs By The Numbers

We ended 2024 with **40,009** published CVEs, up over **38%** from the **28,818** CVEs published in 2023.

- On average, **108** CVEs were published each day.
- May had the highest number of CVEs released, totaling **5,010** or **12.5%** of all CVEs for the year.
- Tuesdays emerged as the leading publishing days, accounting for **9,706** CVEs, or **24.3%** of published CVEs.
- May 3rd recorded the most CVEs released in a single day, with **824**.

CVEs By Month

CVEs Per Month

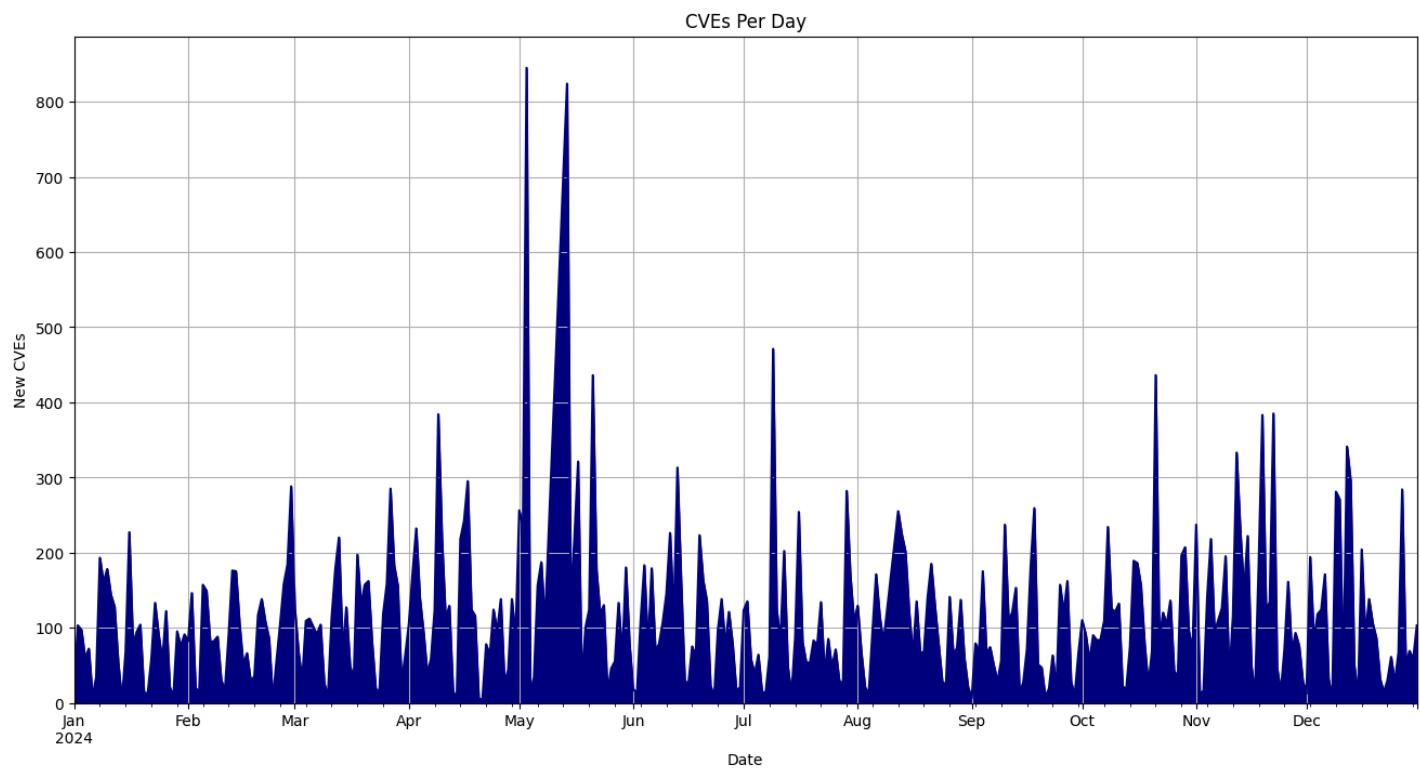
**Month** **CVEs** **Percentage**

Month	CVEs	Percentage
January	2593	6.5
February	2778	6.9
March	3310	8.3
April	3622	9.1
May	5010	12.5
June	3080	7.7
July	3124	7.8
August	2900	7.2
September	2522	6.3
October	3573	8.9
November	4058	10.1
December	3439	8.6

CVEs By Day Of The Week

Day	CVEs	Percentage
Monday	6449	16.1
Tuesday	9706	24.3
Wednesday	7143	17.9
Thursday	6321	15.8
Friday	7100	17.7
Saturday	1858	4.6
Sunday	1432	3.6

Top 10 CVE Publishing Days

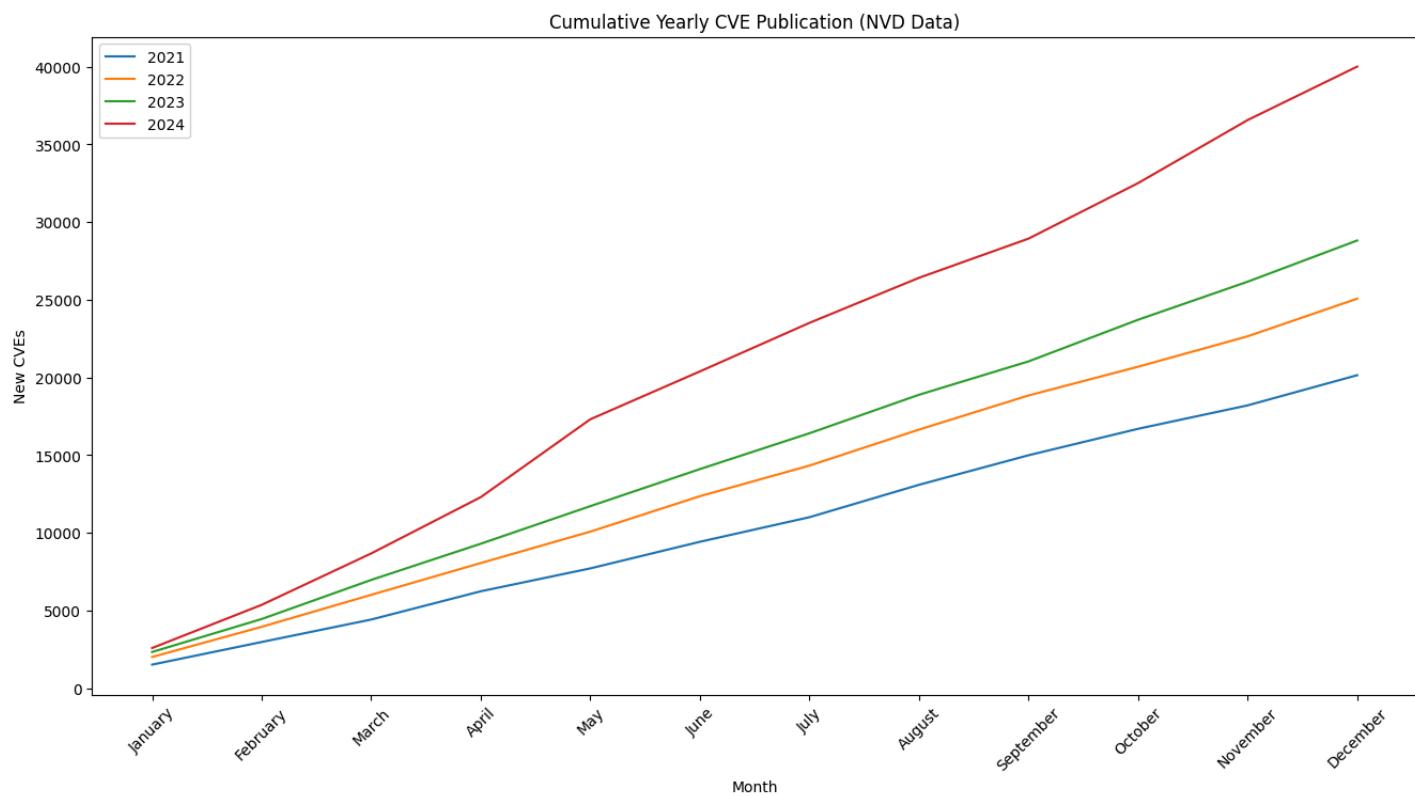


Date	CVEs
5/3/24	845
5/14/24	824
7/9/24	471
5/21/24	436

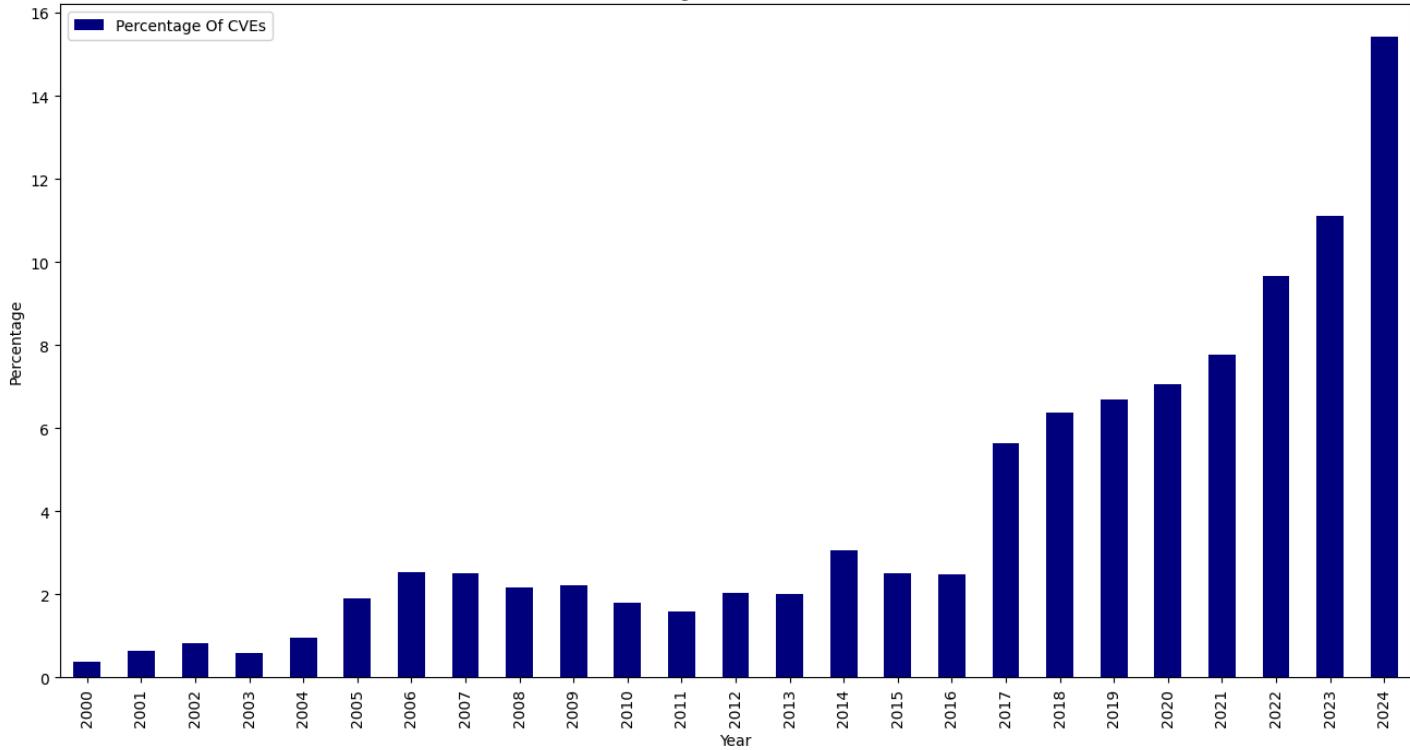
Date	CVEs
10/21/24	436
11/22/24	385
4/9/24	384
11/19/24	383
12/12/24	341
11/12/24	333

CVE Growth

For the seventh consecutive year since 2017, we witnessed a record high of **40,009** CVEs published, marking a **38.83%** increase from 2023. This means that **15.32%** of all CVEs released occurred in the previous year.



Percentage of CVEs Published



CVE CVSS Scores

The Common Vulnerability Scoring System (CVSS) offers a way to capture the key characteristics of a vulnerability and generate a numerical score that ranges from 0.0 to 10.0, reflecting its severity. This year, the average CVSS score was 6.67.

A total of 231 vulnerabilities achieved a “perfect” score of 10.0.

CVE-2024-2365 recorded the lowest published CVSS score of 1.6.

CPE

Common Platform Enumeration (CPE) is a systematic naming convention for IT systems, software, and packages that facilitates identifying vulnerable software listed in a CVE.

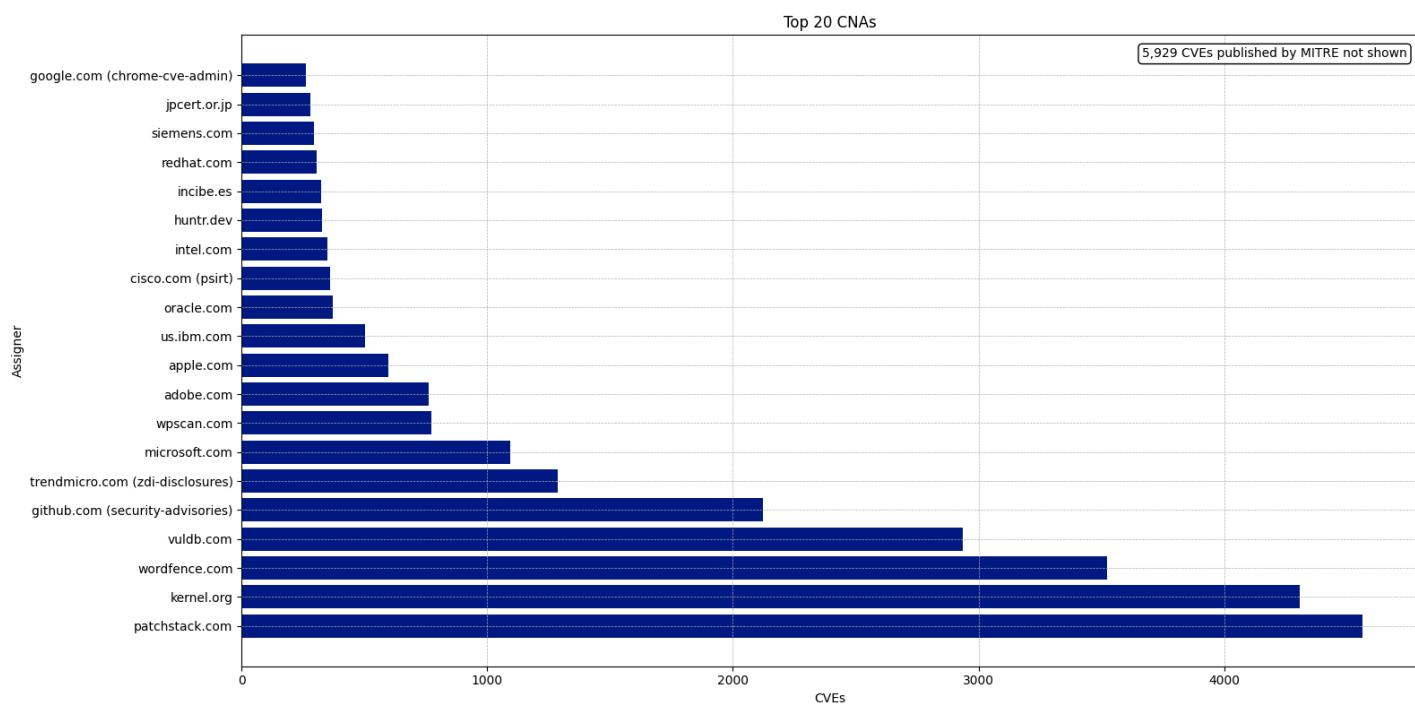
This year, **19,807** distinct CPEs were recorded in CVEs, with the most prevalent being **cpe:2.3:o:linux:linux_kernel:***:***:***:***:*****, which was referenced **8,093** times.

CVE-2024-20433, related to a vulnerability in the Resource Reservation Protocol (RSVP) feature of Cisco IOS Software and Cisco IOS XE Software, has the highest number of CPEs at **2,434** unique, vulnerable configurations.

CNA

CVE Numbering Authorities (CNAs) consist of software vendors, open-source projects, coordination centers, bug bounty service providers, hosted services, and research groups that the CVE Program authorizes to assign CVE IDs to vulnerabilities and publish CVE Records within their designated scopes of coverage.

There are 433 CNAs, and 350 of them have published at least one CVE this year.



The Top 5 CNAs last year were:

CNA	Published CVEs	Overall Percentage
Patchstack	4,566	11.41
Kernel.org	4,325	10.81
Wordfence	3,525	8.81

CNA	Published CVEs	Overall Percentage
Vuldb	2,936	7.34
Github	2,121	5.3

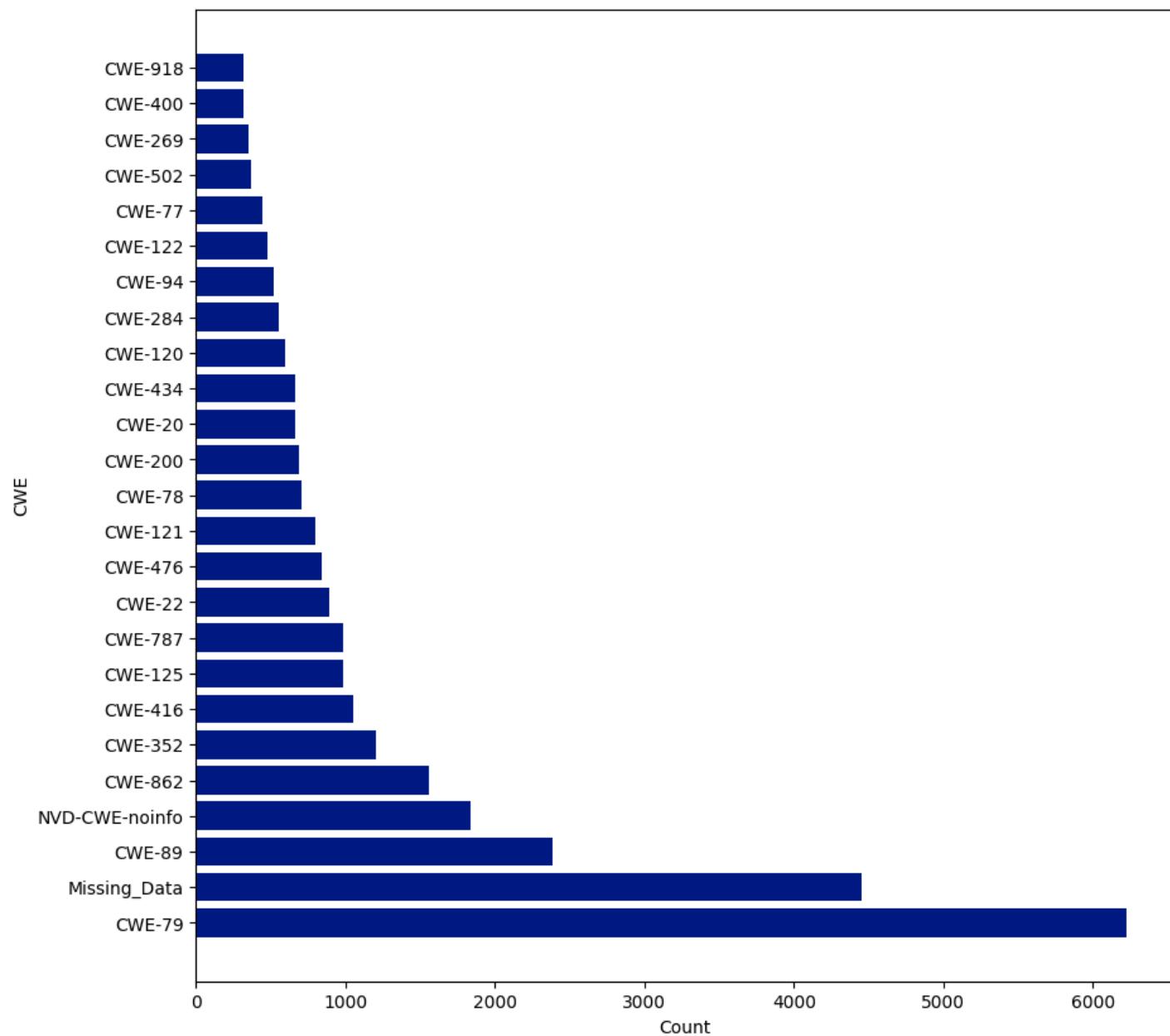
The top five CNAs this year were specifically established to report CVEs for open-source projects (VulDB, Kernel.org, and GitHub) or WordPress plugins (Patchstack and Wordfence). These five CNAs published **17,473** CVEs, accounting for **43.67%** of all CVEs this year.

CWE

CWE is a community-developed list of software and hardware weakness types. It serves as a common language, a benchmark for security tools, and a foundation for identifying, mitigating, and preventing weaknesses.

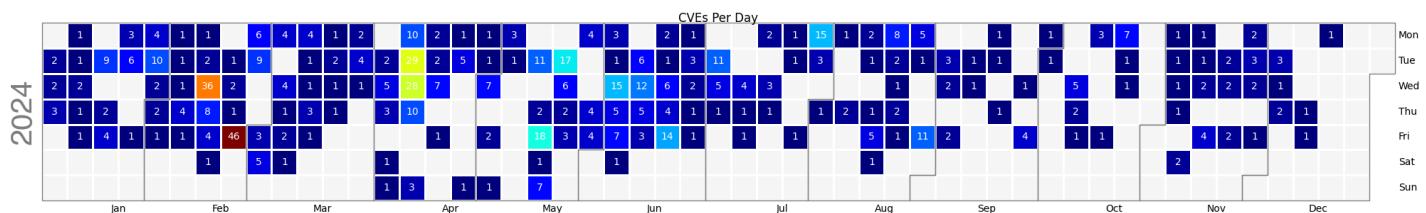
There are 940 CWEs, and 237 were assigned to CVEs this year. CWE-79 was the most assigned CWE and was assigned 6,227 times, or 15.56% of all CVEs. NVD didn't assign a CWE (NVD-CWE-noinfo or Missing_Data) 6,292 times or 15.73% of all CVEs.

Most Common CWE in CVE Records



Notes

695 Rejected CVEs have been removed from the dataset this year.



This GitHub repository contains Jupyter notebooks with all the data and visualizations utilized in this blog.

CVE.ICU is an open-source project that I manage, tracking most of the aforementioned data points in real-time throughout the year, should you wish to stay updated with the data.



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