THEN vs. NOW

How have notable programming languages and security flaws evolved over time?

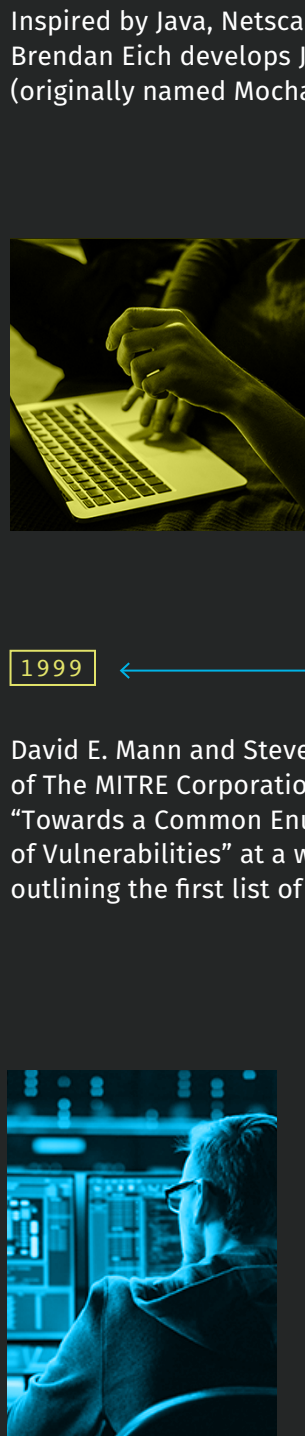
C++

1985 ← C++ → NOW

The first commercial implementation of C++ is released.

6 million+ DEVELOPERS USE C++

59% of C++ applications have high and very high severity flaws.



Python

1991 ← Python → NOW

Python is released as Python 0.9.0, with Python 2.0 releasing later in 2000.

Python is the fastest-growing major programming language ahead of Java, PHP, and C++.

PHP

1994 ← PHP → NOW

Rasmus Lerdorf begins developing PHP, later announcing the release as “Personal Home Page Tools (PHP Tools) version 1.0” in 1995.

79% of all sites with a known server-side programming language use PHP.

40% of open source libraries written in PHP contain cross-site scripting flaws.

Java

1995 ← Java → NOW

Sun Microsystems introduces the Java programming language.

8 million DEVELOPERS USE JAVA

CRLF injection flaws found in 65% of Java applications.

JavaScript

1995 ← JavaScript → NOW

Inspired by Java, Netscape programmer Brendan Eich develops JavaScript (originally named Mocha) in just 10 days.

12 million+ DEVELOPERS USE JAVASCRIPT WORLDWIDE

Java is a language most heavily impacted by cross-site scripting flaws.

SQLi

1998 ← SQLi → NOW

Jeff Forristal is one of the first people to document SQL injection (SQLi).

NEARLY **30%** of applications have a SQLi vulnerability.

CVEs

1999 ← CVEs → NOW

David E. Mann and Steven M. Christey of The MITRE Corporation publish “Towards a Common Enumeration of Vulnerabilities” at a workshop, outlining the first list of CVEs.

There are over 160,000 CVEs listed today, sponsored by the U.S. Department of Homeland Security (DHS) and the Cybersecurity and Infrastructure Security Agency (CISA).

Cross-Site Scripting

2000 ← Cross-Site Scripting → NOW

Microsoft security engineers introduce the term “cross-site scripting.”

47%

OF APPLICATIONS are vulnerable to cross-site scripting flaws, providing attackers a window to inject dangerous scripts and bypass security.

APIs

2000 ← APIs → NOW

The first web APIs are released by Salesforce.com and eBay, introducing the oldest APIs in history.

4.7 billion API requests in 2019 alone in the popular platform for API development—Postman

13 MILLION per day

150 per second

.NET

2002 ← .NET → NOW

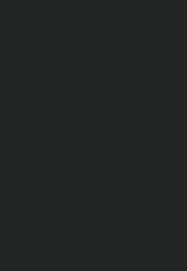
The .NET Framework component stack is released by Microsoft for Windows 98 or later.

.NET Core, a modern version of .NET Framework, ranks third on a list of most in-demand Frameworks by employers hiring in tech.

Cross-Site Scripting Exploits

2005 ← Cross-Site Scripting Exploits → NOW

Samy, also called JS.Spacehero, is a cross-site scripting worm that impacts over 1 million users within 20 hours of its release, making it the fastest-spreading computer virus.



NEARLY **40%** of all cyberattacks were carried out with cross-site scripting exploits in 2019, making it the second most popular attack type globally.

EHRs

2008 ← EHRs → NOW

9% OF HOSPITALS use some form of Electronic Health Records (EHRs) to synchronize patient files, track payments, and validate insurance.

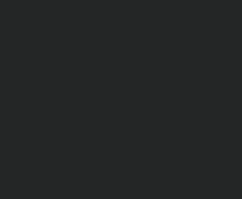
The adoption rate for Electronic Health Records and Electronic Medical Records is 89%, creating a wide attack surface for threat actors.

89%

SQLi

2009 ← SQLi → NOW

The US Department of Justice charges American Albert Gonzalez and two unnamed Russians with the theft of 130 million credit card numbers using a SQLi attack.



65%

SQLi attacks make up about two thirds (65%) of all attacks carried out on modern Web applications today.

Keeping up with trends in languages and exploits gives you the opportunity to pivot when new threats emerge.

Veracode Security Labs, a hands-on training platform that tests your secure coding skills with real-world examples of modern exploits, can help you stay one step ahead so that you’re prepared for the programming challenges of tomorrow.

LEARN MORE

SOURCES

SlashData: State of the Developer Nation Q3 2020 Survey, **Veracode:** State of Software Security V11, **StackOverflow:** 2019 Developer Survey, W3Tech, Springboard, Daxx, eSecurity Planet, Tripwire: The History of Common Vulnerabilities and Exposures (CVEs), National Vulnerability Database (NIST), **MITRE**: CVE and NVD Relationship, Wikipedia, APIEvangelist, Postman, **CodeinGame:** Developer Survey 2021, PreciseSecurity, Journal of the American Medical Association Volume 24 Issue 6, **SelectHub:** EHR and EMR Trends 2021, **Akamai**: State of the Internet Report

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