**Software Development Standards**

Liz Hinz

Professor Nathan Braun

CSD370-A339: Secure Software Development

May 11, 2025

**Software Development Standards**

Secure software development should be at the forefront of all coding processes. Some organizations are sources of standards and frameworks for supporting secure development. Computer science tasks can be easy to lump into one industry, but there are different industries that resources tackle. Three of these online resources are BSA - The Software Alliance, OWASP, and SAFEcode.

Microsoft created the Business Software Alliance (BSA) to represent different software creators and is part of the International Intellectual Property Alliance (Hypertec, 2023). Many recognizable and esteemed businesses are members of the BSA. A significant component of the BSA is trying to eradicate software piracy that mimics that of its members (Hypertec, 2023). This is presumably done through extensive monitoring. The BSA does more than just look for potential bad actors trying to copy software development programs; it also focuses on education. Businesses and the employees are taught policies on how to "allow the free flow of data across borders, avoid requirements for data services to store data locally, advocate a balanced approach to privacy and security issues, advance intellectual property policies that are comprehensive and enforceable, open global markets to digital trade and mitigate market access barriers for the software industry, and encourage a level playing field by promoting procurement policies that are fair and non-discriminatory" (Hypertec, 2023). The BSA targets the global software industry and advocates for innovative companies developing towards an improved modern life (Hypertec, 2023). So, all businesses using software are potentially a part of the targeted industry covered by BSA. It helps enforce anti-piracy software efforts and charges any culprits a fine if they are caught pirating from one of their members (Hypertec, 2023). The BSA website is a great resource available. It includes global policy issues such as AI, privacy, cybersecurity, IP, trade, procurement, workforce, government access, and cross-border data (BSA, n.d.).

Another organization for standards and frameworks for supporting secure development is the Open Worldwide Application Security Project (OWASP). OWASP is a non-profit organization focused on web application security and provides free materials for anyone to easily access through their website (CloudFlare, 2024). The OWASP top 10 focuses on the most critical risks of web security and provides information on how to mitigate them (CloudFlare, 2024). OWASP's targeted industry is web application development and cybersecurity. Leading resources for OWASP are its secure coding practices quick reference guide, top ten security risks, and testing guide, all available on its website (OWASP, 2024). There are also local chapters in North America, Central America, South America, Africa, Asia, Europe, and Oceania (OWASP, 2024).

Software Assurance Forum for Excellence in Code (SAFEcode) is another organization focused on the standards and frameworks for secure development. SAFEcode is a non-profit dedicated to bringing different business leaders and field experts together to collaborate toward more effective software security programs (SAFEcode, n.d.). SAFEcode also targets the software development and cybersecurity industry. Some resources on their site include resource centers, training, and a blog (SAFEcode, n.d.)

Many online resources can help form standards and policies to be upheld when individuals or companies are developing software. A few of these resources include the BSA, OWASP, and SAFEcode. These resources can be invaluable and should be utilized when following through the software development lifecycle steps.

**References**

BSA. (n.d.). *Homepage | BSA | The Software Alliance*. Www.bsa.org. Retrieved May 5, 2025, from https://www.bsa.org

CloudFlare. (2024). What is OWASP? What Are The OWASP Top 10? | Cloudflare. *Cloudflare*. https://www.cloudflare.com/learning/security/threats/owasp-top-10/

Hypertec. (2023, February 3). *Business Software Alliance | Hypertec SP*. Hypertec SP. https://hypertecsp.com/knowledge-base/business-software-alliance-bsa/

OWASP. (2024). *OWASP Secure Coding Practices-Quick Reference Guide*. Owasp.org. https://owasp.org/www-project-secure-coding-practices-quick-reference-guide/

SAFEcode. (n.d.). *Home*. SAFECode. Retrieved May 5, 2025, from https://safecode.org