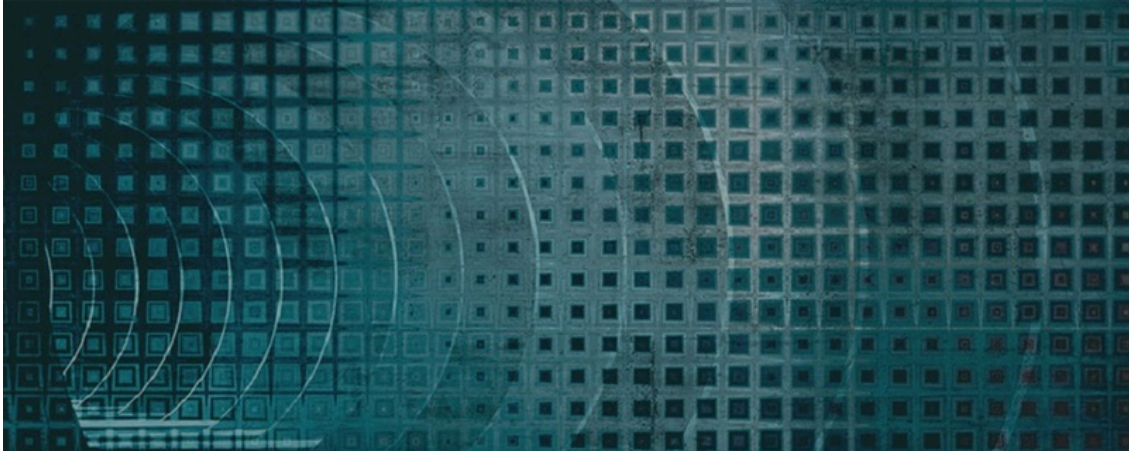


# SEI Bulletin

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## Secure Software by Design 2024 Presentations Available

**November 20, 2024**—The presentations and videos from the Secure Software by Design 2024 conference are now available. SEI security researchers and industry software practitioners gathered in Pittsburgh in August to share ways to address, prevent, or eliminate security weaknesses earlier in the software development cycle. The presentations are available for download from the SEI Digital Library, and the presentation videos are on the SEI's YouTube channel.

This year's presentations delved into a range of secure-by-design topics:

- the Cybersecurity and Infrastructure Security Agency's Secure by Design initiative
- application programming interface (API) security
- quantum computing and security
- security and infrastructure as code
- open source and supply chain risk management
- automated repair of static analysis alerts
- improving software assurance using artificial intelligence (AI)
- writing secure and fault tolerant applications

- DevSecOps, genetic algorithms, AI, and machine learning

[Read more »](#)

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### [Workshop Explores Challenges and Progress on Certification of Real-Time Cyber-Physical Systems](#)

A recently released report details the second meeting of the Assurance Evidence for Continuously Evolving Real-Time Systems (ASERT) workshop.

[See more news »](#)

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### [GenAI for Code Review of C++ and Java](#)

Would ChatGPT-3.5 and ChatGPT-4o correctly identify errors in noncompliant code and correctly recognize compliant code as error-free?

### [An Introduction to Hardening Docker Images](#)

Through our work, we have seen stakeholders encountering difficulty with hardening open source container images for vulnerability mitigation.

[See more blogs »](#)

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### [Cybersecurity Metrics: Protecting Data and Understanding Threats](#)

Scoping down objectives and determining what kinds of data to gather are persistent challenges in cybersecurity. Bill Nichols explores cyber metrics in our latest podcast.

### [3 Key Elements for Designing Secure Systems](#)

To make secure software by design a reality, engineers must intentionally build security throughout the software development lifecycle. Timothy A. Chick discusses building, designing, and operating secure systems.

[See more podcasts »](#)

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### [Latest Videos](#)

#### [Cyber Challenges in Health Care: Managing for Operational Resilience](#)

Matthew Butkovic and Darrell Keeling explore approaches to maximize return on cybersecurity investment in the health-care context.

#### [Independent Verification and Validation for Agile Projects](#)

Justin Smith highlights a novel approach to providing independent verification and validation (IV&V) for projects that are using an Agile or iterative software development.

[See more videos »](#)

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### [Latest Publications](#)

#### [Dangers of AI for Insider Risk Evaluation \(DARE\)](#)

Austin Whisnant describes the challenges of using artificial intelligence for insider risk analysis and how to thoughtfully and efficiently use AI to find insider threats.

#### [Assurance Evidence of Continuously Evolving Real-Time Systems \(ASERT\) Workshop 2024](#)

This report summarizes the analysis of the Taiwanese flight CI202 incident as well as ideas for future work for ASERT presented at its 2024 workshop.

#### [Secure Software by Design 2024 Presentations](#)

SEI security researchers and industry software practitioners share ways to address, prevent, or eliminate security weaknesses earlier in the software development cycle.

[See more publications »](#)

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## [Upcoming Events](#)

[FloCon 2025](#), March 4, 2025

FloCon is the SEI's annual conference on data-driven security.

[See more events »](#)

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## [Upcoming Training](#)

[Cybersecurity Oversight for the Business Executive](#)

January 15-16, 2025 (SEI Live Online)

[Software Architecture Design and Analysis](#)

February 11-14, 2025 (SEI Live Online)

[See more courses »](#)

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## [Employment Opportunities](#)

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[Program Development Manager](#)

[Senior Vulnerability Researcher](#)

[All current opportunities »](#)



# Carnegie Mellon University

## Software Engineering Institute



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