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## SEI Events Offer Industry Insights on Model-Based Systems Engineering and Secure Software by Design

**August 6, 2025** — A pair of SEI events this month will feature industry veterans' perspectives on two key enablers of high-quality software system engineering.

Secure Software by Design 2025, August 19-20 in Arlington, Virginia, will feature two keynote speakers. N. Luke Thomas, chief product security engineer for the Rolls-Royce Group, will deliver the presentation "Cheap Complexity, Classic Videogames, and Binary Sandcastles." Scott Dietzen, CEO of Augment Code and former CEO of Pure Storage, will present "The Impact of AI on Software Engineering." The third annual event seeks to promote deliberate engineering processes that integrate security into the entire software lifecycle.

Model-Based Systems Engineering (MBSE) in Practice 2025, August 21 in Arlington, will bring together practitioners, researchers, and thought leaders to bridge the gap between MBSE theory and its real-world practice. David Long, director for strategic integration at the International Council on Systems Engineering (INCOSE) and founder of Vitech, will deliver the keynote presentation “Into the Great Digital Unknown: The Evolving Landscape of MBSE and Digital Engineering.”

Registration is open for both events.

[\*\*Learn more about Secure Software by Design 2025 »\*\*](#)

[\*\*Learn more about Model-Based Systems Engineering in Practice 2025 »\*\*](#)

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[SEI Fellow, Founding CERT/CC Director Richard D. Pethia Inducted into FIRST Incident Response Hall of Fame](#)

The honor recognizes Pethia’s trailblazing work in computer security incident response.

[SEI Seeks Papers on Engineering Safety-Critical AI Systems](#)

Submissions for the AAAI symposium are due August 11.

[\*\*See more news »\*\*](#)

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[Artificial Intelligence in National Security: Acquisition and Integration](#)

This post details practitioner insights from the AI Acquisition workshop, including challenges in differentiating AI systems, guidance on when to use AI, and matching AI tools to mission needs.

[Managing Security and Resilience Risks Across the Lifecycle](#)

This post introduces the Security Engineering Framework, a detailed schema of software-focused engineering practices that acquisition

programs can use to manage security and resilience risks across the lifecycle of software-reliant systems.

[See more blogs »](#)

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## [Latest Podcasts](#)

### [Understanding Container Reproducibility Challenges: Stopping the Next Solar Winds](#)

Kevin Pitstick and Lihan Zhan discuss Vessel, a recent SEI tool that helps developers identify the difference between two container images to help sort benign from problematic issues.

### [Mitigating Cyber Risk with Secure by Design](#)

SEI CERT Division director Greg Touhill and Matt Butkovic highlight recommendations, built on prior joint efforts by the SEI and the Cybersecurity Infrastructure Security Agency, for making software secure by design.

[See more podcasts »](#)

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## [Latest Publications](#)

### [Report on the First MBSynergy Workshop](#)

MBSynergy research focuses on ways of pursuing government equities using model-based systems engineering and digital engineering in DoD and intelligence community settings. This report describes the MBSynergy team's first working session.

### [Software Bill of Materials \(SBOM\) Harmonization Plugfest 2024](#)

This report describes how differences in SBOM generation can result in different SBOM outputs.

### [What Can Generative AI Red-Teaming Learn from Cyber Red-Teaming?](#)

This paper investigates the applicability of established cyber red-teaming

methodologies to the evaluation of generative AI systems, addressing the growing need for robust security assessments in AI-driven applications.

[See more publications »](#)

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## [Latest Videos](#)

### [Achieving Balance: Agility, MBSE, and Architecture](#)

Peter Capell addresses a practical vision for meeting stakeholder expectations of Agile implementation, highlighting the value of model-based systems engineering and architecture.

### [Identifying AI Talent for the DoD Workforce](#)

Eric Keylor, Intae Nam, and Dominic Ross go beyond traditional knowledge and skill assessments as they introduce prototype tools that reveal key information about evaluating talent for AI and data positions.

[See more videos »](#)

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## [Upcoming Events](#)

### [Secure Software by Design 2025](#), August 19-20, Arlington, Va.

Join thought leaders in secure software by design for presentations and discussions on all aspects of secure software systems development.

### [Model-Based Systems Engineering \(MBSE\) in Practice 2025](#), August 21, Arlington, Va.

Join us to gain practical insights from seasoned MBSE adopters, discover innovative solutions to common challenges, and shape the future of systems engineering in an increasingly complex world.

### Webcast - [Quantum Computing Meets High Performance Computing Skills in the Class](#), August 27

SEI AI researcher Dan Justice and NVIDIA senior technical marketing engineer Monica VanDieren assess the university preparation of quantum

machine learning students for work in high performance computing environments.

[AAAI Fall Symposium: Engineering Safety-Critical AI Systems](#), November 6-8, Arlington, Va.

As AI is increasingly applied to new and more high-risk settings, a mature safety engineering discipline for AI becomes ever more critical. Join the SEI to advance the discipline of engineering AI for safety.

[\*\*See more events »\*\*](#)

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## [\*\*Upcoming Appearances\*\*](#)

[Space and Missile Defense \(SMD\) Symposium 2025](#), August 5-7, Huntsville, Ala.

Visit the SEI at booth E106.

[AFCEA TechNet Augusta 2025](#), August 18-21, Augusta, Ga.

Visit the SEI at booth T825.

[16th Annual Billington CyberSecurity Summit](#), September 9-12, Washington, D.C.

Hear SEI CERT Division director Greg Touhill, and visit the SEI at booth D23.

[AFA Air Space Cyber Conference 2025](#), September 22-24, National Harbor, Md.

Visit the SEI at booth 116.

[\*\*See more opportunities to engage with us »\*\*](#)

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## [\*\*Upcoming Training\*\*](#)

[Software Architecture Design and Analysis](#)

August 12-15 (Live Online)

[Advanced Topics in Incident Handling](#)

September 23-26 (Live Online)

**E-learning** - [CERT Artificial Intelligence \(AI\) for Cybersecurity Professional Certificate](#)

**E-learning** - [Introduction to Artificial Intelligence \(AI\) Engineering](#)

**E-learning** - [Effective Communication of Technical Concepts](#)

**[See more courses »](#)**

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## **[Employment Opportunities](#)**

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