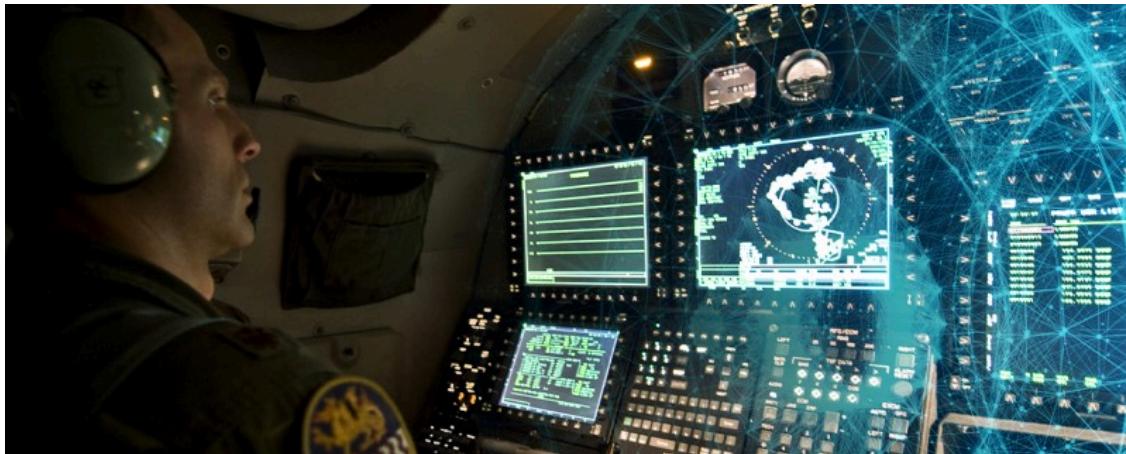


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Model-Based Systems Engineering in Practice Conference Opens Call for Presentations, Registration

June 11, 2025 — The SEI has opened registration and a call for presentations for Model-Based Systems Engineering (MBSE) in Practice 2025. The one-day, on-site event will feature panel discussions and presentations on August 21 at the Cooperative Plaza Conference Center in Arlington, Virginia.

As software-enabled systems become increasingly complex and interconnected, traditional engineering approaches struggle to keep pace, especially in the high-stakes environment of the Department of Defense (DoD). The MBSE in Practice conference provides practitioners, researchers, and thought leaders with a platform to bridge the gap between MBSE theory and its real-world practice. In particular, the conference explores solutions for the organizational challenges of MBSE adoption: improving traditional system engineering and enterprise architecture quality with

MBSE, leveraging MBSE for DoD acquisition and test and evaluation (T&E), and applying MBSE for cybersecurity, system analysis, and assurance.

Presentation abstracts are due July 11.

[**Read more »**](#)



SEI News

Updated Machine Learning Test and Evaluation Tool and Process Adds Major Features

MLTE version 2.0.0 bridges silos between machine learning model developers and other stakeholders of ML-enabled software systems.

SEI Study on Defense Department DevSecOps Finds Excellence and Opportunities

The study, released by the DoD Chief Information Officer, found the department should scale up its pockets of DevSecOps success.

[**See more news »**](#)



Latest Blogs

Out of Distribution Detection: Knowing When AI Doesn't Know

Eric Heim and Cole Frank discuss how to know when an AI system is operating outside its intended knowledge boundaries.

Delivering Resilient Software Capability to the Warfighter at the Speed of Relevance

SEI director Paul Nielsen outlines the ways in which our research and development supports the DoD's use of modern software practices at each phase of the software development and operation lifecycle.

[**See more blogs »**](#)



Latest Podcasts

Making Process Respectable Again: Advancing DevSecOps in the DoD Mission Space

The SEI's Eileen Wrubel and Bill Nichols, with George Lamb of the Department of Defense (DoD), talk about how DevSecOps has become crucial to overall mission success in high-stakes DoD environments where security, efficiency, and speed are critical.

Deploying on the Edge

Patrick Earl, Doug Reynolds, Jose Morales, and Jeffrey Hamed discuss how deploying cloud-centric technologies such as Kubernetes in edge environments poses challenges, especially for mission-critical defense systems.

[See more podcasts »](#)



Latest Publications

Will Generative AI Fill the Automation Gap in Software Architecting?

This paper explores the application of generative AI to software architecture, focusing on potential alignment (or lack thereof) of generative AI with the nature of common architecture tasks involved in five common architecture activities.

Practical Supervised Machine Learning Classification of Highly Imbalanced Text

Austin Whisnant describes a machine learning model used to build a corpus of insider threat data to support insider threat research.

Kubernetes (k8s) in the Air Gap

This paper explains how the act of mirroring the required container images for a k8s deployment in the air gap has become increasingly simplified in the past few years.

[See more publications »](#)



Latest Videos

Demystifying Operational Resilience

Alexander Petrilli and Matthew Butkovic explain why operational resilience is important and discuss best practices to carry out mission priorities when core operational capacities are affected.

The State of DevSecOps in the DoD: Where We Are, and What's Next

The SEI's Brigid O'Hearn and Eileen Wrubel, with George Lamb of the Department of Defense (DoD), discuss how key findings of *The State of DevSecOps in the DoD* study will help the DoD ensure an effective, scalable, and adaptable software ecosystem.

[See more videos »](#)



Upcoming Events

Webcast - [An Introduction to the MLOps Tool Evaluation Rubric](#), June 17, 1:30-2:30 p.m. ET

Violet Turri and Emily Newman discuss the challenges of finding the right tools to support machine learning operations (MLOps) pipelines and introduce the MLOps Tool Evaluation Rubric.

Webcast - [Quantum Machine Learning Classroom Meets High-Performance Computing Skills](#), June 18, 10-11 a.m. ET

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.

[International Workshop on Envisioning the AI-Augmented Software Development Lifecycle](#), June 26, Trondheim, Norway

This workshop seeks to explore how AI might transform end-to-end software systems development workflows and emphasizes the need to collect relevant data now to assess the long-term effects of AI throughout the software development lifecycle.

[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.

[**See more events »**](#)



[Upcoming Appearances](#)

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

Visit the SEI at booth T825.

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



[Upcoming Training](#)

[Documenting Software Architectures](#)

August 4-7 (Live Online)

[Designing Modern Service-Based Systems](#)

August 11 (Live Online)

[Design Guidelines and Patterns for Microservices](#)

August 18-21 (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](#)

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Employment Opportunities

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