Explainable AI Explained

January 19, 2022 — A new SEI Blog post introduces the current state of explainable artificial intelligence (XAI), a "set of processes and methods that allows human users to comprehend and trust the results and output created by machine learning algorithms," according post author Violet Turri, a software developer in the SEI's Artificial Intelligence Division. It is a powerful tool to develop user trust in AI systems and address rising ethical and legal concerns. However, despite the growing interest in XAI research and the demand for explainability across disparate domains, such as medicine and finance, XAI still suffers from a number of limitations. Turri's blog post "What Is Explainable AI?" delves into the practice's strengths and weaknesses.

Read the post »

SEI News

Anita Carleton Elected Fellow of IEEE
Anita Carleton, director of the SEI Software Solutions Division (SSD) has been elected as a Fellow of IEEE.

**SEI Coauthors Responsible AI Guidelines**
The new report from the Defense Innovation Unit makes progress towards operationalizing the Department of Defense's Ethical Principles for AI.

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**Latest Blogs**

**What is Explainable AI?**
Violet Turri introduces explainable artificial intelligence (XAI), a powerful tool in answering critical How? and Why? questions about AI systems.

**Top 10 Blog Posts of 2021**
Doug Schmidt presents the 10 most-visited posts published between January 1, 2021, and December 31, 2021.

**Toward Technical Reference Frameworks to Support Large-Scale Systems of Systems**
Douglas Schmidt and Nickolas Guertin present strategies for creating architectures for systems of systems composed of functions covering a broad range of requirements.

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**Latest Podcasts**

Suzanne Miller talks with Nickolas Guertin and Douglas Schmidt about strategies for creating architectures for large-scale, complex systems that comprise functions with a wide range of requirements.

**Software Engineering for Machine Learning**
Grace Lewis and Ipek Ozkaya discuss their research into software
engineering for machine learning (ML) with host Jonathan Spring.

**A Discussion on Automation with Watts Humphrey Award Winner Rajendra Prasad**

2020 IEEE Computer Society SEI Watts Humphrey Software Quality Award winner Rajendra Prasad of Accenture talks with Mike Konrad of the SEI about automation.

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**Latest Publications**

**DevSecOps Days Washington, D.C. 2021**
These presentations were given at the SEI-hosted, virtual DevSecOps Days conference.

**Using Machine Learning to Increase NPC Fidelity**
This technical report describes how the authors used machine learning modeling to create decision-making preferences for non-player characters (NPCs).

**SEI Research Review 2021**
Videos and presentations from the 2021 SEI Research Review.

*See more publications ➔*

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**Latest Videos**

YouTube - **DevSecOps Days Washington, D.C. 2021**

YouTube - **2021 SEI Research Review**
Presentations and talks from the 2021 SEI Research Review.

Webcast - **A Cybersecurity Engineering Strategy for DevSecOps**
Carol Woody presents a strategy for cybersecurity engineering in DevSecOps environments.
Upcoming Events

**AADL/ACVIP User Days 2022**, May 5, 2022
Speakers at this free forum will present the latest on the Architecture Analysis and Design Language (AADL), the Architecture-Centric Virtual Integration Process (ACVIP), and associated tools.

This conference gathers researchers and practitioners to share about software and system processes and global software engineering.

*Note*: The SEI is evaluating all upcoming courses, conferences, and events case-by-case in light of COVID-19 developments. Check individual event pages for the latest information.

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Upcoming Training

**Cybersecurity Oversight for the Business Executive**
March 15-16, 2022 (SEI, Live Online)

**Introduction to the CERT Resilience Management Model**
April 5-6, 2022 (SEI, Live Online)

**Designing Modern Service-Based Systems**
April 25, 2022 (SEI, Live Online)

*Note*: The SEI is evaluating all upcoming courses, conferences, and events case-by-case in light of COVID-19 developments. Check individual training pages for the latest information. You may also contact us at courseregistration@sei.cmu.edu or +1-412-268-7388.
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