SEI Bulletin

Study Shows How to Assess Large Language Model Fitness for Software Engineering and Acquisition

January 17, 2024—Large language models (LLMs) hold promise for efficiency and productivity gains for organizations with large software operations. But the number and variety of potential LLM use cases, as well as the technology's costs and drawbacks, make it hard to know when an LLM is the right solution. A recent SEI white paper can help decision makers assess the fitness of LLMs for software engineering and acquisition tasks.

"Does it make sense to try an LLM in the first place? How do you put safeguards around yourself so that you're using it appropriately, protecting your data, not wasting your time, and producing conclusions you know are trustworthy?" said James Ivers, an SEI principal engineer and co-author of the paper. "These are the questions we tried to help organizations answer for themselves."

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SEI News

SEI Team Leads First Independent Study on Technical Debt in Software-Intensive DoD Systems
Experts on technical debt and DoD software modernization delivered broad-ranging findings to Congress.

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Latest Blogs

The Latest Work from the SEI
Douglas Schmidt summarizes recent publications from the SEI in the areas of supply chain risk management, technical debt, large language models, quantum computing, acquisition, and trustworthiness in AI systems.

The Top 10 Blog Posts of 2023
Last year's 10 most-visited posts highlighted our work in quantum computing, software modeling, zero trust, large language models, DevSecOps, and artificial intelligence.

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Latest Podcasts

ChatGPT and the Evolution of Large Language Models: 4 Case Studies
Matthew Walsh and Dominic Ross discuss their work in developing four case studies to understand limitations and future uses of ChatGPT.

The Cybersecurity of Quantum Computing: 6 Areas of Research
Thomas Scanlon discusses how to create the discipline of cyber protection

of quantum computing and outlines six areas of future research in the field.

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Latest Publications

The Measurement Challenges in Software Assurance and Supply Chain Risk Management
Nancy Mead, Carol Woody, and Scott Hissam recommend an approach for developing and evaluating cybersecurity metrics for open source and other software in the supply chain.

Report to the Congressional Defense Committees on National Defense Authorization Act (NDAA) for Fiscal Year 2022 Section 835 Independent Study on Technical Debt in Software-Intensive Systems
This independent study of technical debt in Department of Defense (DoD) software-intensive systems gives a first-ever snapshot of the state of technical debt in DoD software programs.

See more publications »

Upcoming Events

Webcast - The Future of Software Engineering and Acquisition with Generative AI, January 24
In this webcast, SEI researchers will explore the future of software engineering and acquisition using generative AI technologies.

Symposium - Supply Chain Risk Management Symposium 2024, February 28
Join us to hear about the latest challenges and best practices in supply chain risk management (SCRM) from recognized leaders in SCRM research, as well as leading-edge practitioners from government and industry.

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Upcoming Training

Insider Risk Management: Measures of Effectiveness
February 20-22, 2024 (SEI Arlington, Va.)

Designing Modern Service-Based Systems
March 12, 2024 (SEI Live Online)

Design Guidelines and Patterns for Microservices
March 18-21, 2024 (SEI Live Online)

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