



Front-line Researchers

- Seishi Takamura, Visiting Senior Distinguished Researcher, Computer and Data Science Laboratories, NTT, Inc.

Rising Researchers

- Akihiro Suda, Distinguished Researcher, Software Innovation Center, NTT, Inc.

Feature Articles

AI for Quality Growth—NTT Group's AI Research and Business

- NTT's LLM tsuzumi 2: A High-performance, Secure, and Low-cost Japanese LLM
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- Multifaceted Analysis of Accumulated Water in Underground Structures of Telecommunication Facilities: Evaluation of Health Risks and Corrosiveness

Front-line Researchers

Seishi Takamura, Visiting Senior Distinguished Researcher, Computer and Data Science Laboratories, NTT, Inc.

▼ Abstract

Encoding technology, which effectively compresses the capacity of still images and videos, has developed into a cutting-edge research field, which is necessary in today's world to transmit vast amounts of information efficiently in a multimodal manner. Dr. Seishi Takamura, a visiting senior distinguished researcher at NTT Computer and Data Science Laboratories, is a world-renowned researcher in this field and has proposed a series of new encoding methods based on various ideas. Recently, he has been challenging himself to explore the ultimate video imaging system that captures, transmits, stores, and displays images at the level of photons, the smallest units of light that make up images. In this interview, we asked him about his latest research results, vision for the future, and perspective as an IEEE (Institute of Electrical and Electronic Engineers) Fellow on raising Japan's research capabilities and nurturing young researchers, including students.

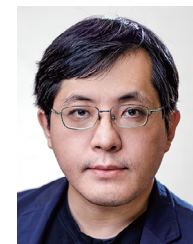


Rising Researchers

Akihiro Suda, Distinguished Researcher, Software Innovation Center, NTT, Inc.

▼ Abstract

The discovery of a backdoor in the open-source software (OSS) "liblzma" (a file-compression library) in 2024 demonstrated that even core operating-system libraries could be targeted in a manner that fundamentally damage the credibility of the OSS supply chain. Fortunately, this incident was discovered and addressed before it could be deployed to countless systems worldwide. In light of this serious situation, further strengthening of cybersecurity has become an urgent necessity. In this interview, we spoke with Distinguished Researcher Akihiro Suda at NTT Software Innovation Center [affiliation as of the time of the interview], a leading expert in strengthening the security of the OSS supply chain.



Feature Articles

AI for Quality Growth—NTT Group's AI Research and Business

NTT's LLM tsuzumi 2: A High-performance, Secure, and Low-cost Japanese LLM

▼ Abstract

The NTT Group is promoting artificial intelligence (AI) business with "AI for Quality Growth," a unique strategy to support sustainable and high-quality growth of enterprises with AI. The Japanese large language model (LLM) "tsuzumi 2," lightweight yet high performing, was announced through a press release on October 20, 2025, and has started to be commercially available. This article outlines the NTT Group's AI strategy and introduces the current status of NTT's LLM "tsuzumi," focusing on the evolution points from tsuzumi to tsuzumi 2.

AI for Quality Growth

- 1. End-to-end, full-stack**
 - Combining consulting with AI solutions design and its implementation
- 2. Extensive AI lineup**
 - AI developed through partner collaboration and in-house R&D
- 3. Incorporation in AI-ready business processes**
 - Advanced support for value creation