



Collaborating with CSAIL Alliances for Co-Innovation

Audrey Woods, MIT CSAIL Alliances | August 18, 2025

As a leading Global IT Services provider, MIT CSAIL Alliances partner-level member NTT DATA understands the need for modern businesses to adopt emerging technologies through collaboration with academic institutions. With clients around the world navigating critical questions about Al deployment, productivity, efficiency, and trust, NTT DATA is committed to bringing its customers the tools and innovation that will advance the state of Al.

NTT DATA has maintained ties to MIT for many years, with the decision to formally engage with CSAIL Alliances driven by the lab's specific strengths in AI, robotics, and other cutting-edge technologies. Now they are building academic and industry relationships that will lead to concrete gains and bring key insights to their clients, community, and the world.

About NTT DATA: Global Scale, Human Focus

With its Japanese roots, NTT DATA is one of the world's largest multinational technology service and consulting companies, with 330,000+ professionals employed worldwide and annual revenues of \$30+ billion. Head of Digital Strategy Juan-Carlos Martinez explains, "we have an end-to-end service portfolio, from advanced technology like Al agents to consolidated business management technologies," all deeply rooted in human values that make the NTT DATA culture unique.

Research is a critical element of that culture. Head of NTT DATA North America Innovation Center Mary Leos says, "as a globally trusted innovator for our clients, we re-invest approximately 30% of NTT profit, translating to a few billion dollars annually, in R&D. This investment, along with our global talent approach and our technology and academic collaborations, accelerates the timeline to solve complex business challenges with our clients. With the pace at which technology is changing, it takes a full village of support." Their team sees top academic institutions like MIT CSAIL as a critical place to build the future-focused pipeline that will deliver the best possible value to their customers.

Engaging with MIT CSAIL's Startup Ecosystem: Systalyze Inc.

NTT DATA is actively engaging with multiple CSAIL researchers to explore the tools and technologies presented at the 2025 CSAIL Alliances Annual Meeting. A standout partnership is with Systalyze, co-founded by MIT CSAIL Associate Professor Manya Ghobadi and CSAIL alum Dr. Sudarsanan Rajasekaran, which is transforming how enterprises approach AI deployment, economics, and efficiency.

<u>Systalyze's</u> platform allows enterprises to deploy and operate Al applications independently, on any model architecture, in any cloud or on-premise, without vendor lock-in. It dramatically reduces deployment time from months to minutes and lowers total software and operational overhead by up to 90%, all while preserving full data privacy. By simplifying the entire Al lifecycle, Systalyze removes the key barriers to Al adoption: deployment complexity and unpredictable costs.

This enables organizations to host and manage AI workloads efficiently at scale while maintaining complete privacy and security of proprietary data.

"Systalyze delivers what seemed impossible: massive cost savings without sacrificing performance or security," says Narendra Kumar Nagulapalli, NTT DATA's GenAl Architect from the Global Al Office (GAO). "Their deep expertise in Al optimization maximizes ROI while reducing energy consumption, perfectly aligning with our commitment to delivering sustainable, high-performance solutions to clients."

Advancing Tech & Thought Leadership

Since joining CSAIL Alliances, NTT DATA has participated in multiple lab visits, both inperson and virtually. Members of their teams have met with CSAIL faculty including MIT CSAIL Researcher Amar Gupta, Professor Ghobadi, Associate Professor Pulkit Agrawal, Professor Manolis Kellis, Associate Professor Mohammad Alizadeh, and Professor Armando Solar-Lezama. These conversations have explored everything from high performance Al system design, convolution-based multi hybrid SLMs, latent space search to manufacturing applications, and more, offering NTT DATA a diverse portfolio of cutting-edge research to integrate into their business solutions.

Leos says that due to "the access to MIT researchers and the expanded knowledge of the CSAIL Alliances team we are able to extend the overall value we bring to our clients." NA Academics lead Julian Booth adds, "connecting cutting-edge research directly with industry practices has proven invaluable. Through our collaborative ecosystem, we are making significant strides in addressing today's challenges using tomorrow's technology. Our Client Relations Coordinator Jeff Manteiga has been doing an incredible job of connecting us to different pieces within MIT CSAIL's network."

As AI agents become increasingly capable of executing autonomous workflows, one area NTT DATA is currently interested in is the industry applications of Agentic AI. Their teams are focused on tackling some of the hardest technical and organizational questions around responsible adoption and scaling. "Many companies are still in pilot mode," Martinez notes, "but to fully integrate AI agents at scale, you need long-term vision, resource allocation, and people who are both curious and determined to make it work."

Nagulapalli highlights a major challenge of deploying Al Agents that NTT DATA is actively investigating: explainability. "To automate a complete workflow, the major gap I see is the explainability of decision making. Currently, LLMs are closed box models, and we need to gain the trust of leaders and everyone who is actively trying to obtain ROI." For research on explainability, agents, decision processes, and other industry-critical questions, Nagulapalli says, "this is where we are looking into the cutting-edge research coming from MIT."

NTT DATA is also advancing GenAl research with MIT CSAIL by participating in two CSAIL Alliances working groups: **Generative Al for Critical Infrastructure Systems** led by Senior Research Scientist Una-May O'Reilly and **Generative Al for Manufacturing and Design** led by Assistant Professor Mina Konakovic Lukovic. These small-group forums allow NTT DATA to not only stay ahead of technical trends but also "bridge the technology-to-business conversations. These discussions with academic centers of excellence about the technology and the ethics inform how we recommend the inclusion of these advanced technologies in our clients' business transformation strategies," Leos says.

Events & Conferences

Earlier this year, CSAIL Professor and COO of MIT CSAIL Armando Solar Lezama was invited to NTT DATA's headquarters in Plano, Texas for Horizons, the company's Innovation Day event. This opportunity enabled NTT DATA to bring the benefits of their affiliation with MIT to their clients. Professor Solar-Lezama engaged with attendees in both a fireside chat and a panel session focusing on the latest MIT CSAIL research and NTT DATA collaboration. This proved to be a standout experience for the participating industry professionals, offering a glimpse into potential paths of joint future innovation and highlighting how academic and industry collaboration can drive value to industry.

Leos notes: "having the opportunity to include Professor Solar-Lezama in the discussions with clients regarding the impact of advanced technologies was highly beneficial. Sharing a glimpse into his current research, our joint projects, and views of how technology benefits both society and the individual resulted in personal takeaways for our attendees."

In April, 2025, NTT DATA business leaders and technical experts attended the 2025 CSAIL Alliances Annual Meeting, immersing themselves in "the renowned consortium of industry leaders, researchers, and innovators shaping the future of advanced technologies," Booth says. Martinez, who contributed his insights on an industry panel at the event, describes the gathering as "a terrific experience. The sense of collaboration and vibrant ecosystem CSAIL Alliances has built is truly impressive."

Nagulapalli adds, "learning about new technologies and new research areas firsthand and seeing how students are working on future problems is extremely useful and inspiring. I had a chance to interact with professors on niche topics and got great insights from those meetings."

Looking Ahead: A Deeper Relationship

Going forward, NTT DATA aims to be "even more proactive" with CSAIL Alliances, according to Martinez. "We have a huge opportunity to stay in contact with what's going on. It's our duty to be informed [on technology], but it's also important to interact with all the key players in the industry because it's impossible to have all the knowledge nowadays. Every day the field is bigger and growing by the minute, so we want to be more involved in this community, to both take value and bring value, and also share all these experiences with the rest of our colleagues inside the company."

Emphasizing the multiple dimensions of current and future work and the many conversations happening between NTT DATA researchers and CSAIL scientists, Booth concludes, "We're just getting started."