How Qualcomm is Leveraging Creativity and Vision at MIT CSAIL

Audrey Woods, MIT CSAIL Alliances | January 12, 2026

Even the best technology companies can't think of everything. When rolling out new platforms or processors, industry leaders recognize the need to loop in novel thinkers and pioneering researchers to explore the boundary of what's possible with technological advancements. Who knows what a creative graduate student might think to do when empowered with the most cutting-edge equipment?

That's why global leader in wireless technology and CSAIL Alliances Affiliate Qualcomm is leveraging relationships with academic institutions like MIT CSAIL to trial their new developer platforms. By engaging with top-tier researchers and students, they gain not only key insights from collaborations and talks but also access to a vibrant intellectual community eager to experiment with next-generation technology. As they look to enable future developers with the best possible systems, Qualcomm is excited to deepen their engagement with MIT CSAIL through CSAIL Alliances.

ABOUT THE COMPANY: CONNECTING PEOPLE THROUGH TECHNOLOGY

Founded in 1985 and headquartered in San Diego, Qualcomm's name stemmed from its mission of "Quality Communications." Originally a contract research and development center for government projects, the company is best known for its foundational role in mobile communications technology such as 4G LTE and 5G. Currently, their Snapdragon processors are widely used in smartphones, tablets, wearables, and other Internet of Things (IoT) devices. Their semiconductors specifically focused on wireless technology have become a critical component of modern mobile ecosystems in automated systems, networks, industrial manufacturing, edge computing, and now AI and machine learning applications. Qualcomm Senior Program Manager Emma Lacey says, "fundamentally, Qualcomm's mission is to connect people in innovative ways. That's why wireless communication is usually at the forefront, because communication is how people connect with each other, whether it's in person, on the phone, or on all these nifty devices that we have."

Today, Qualcomm is focused on digital transformation in communication in its many wide-reaching forms. Emma elaborates, **"technology is not just in one communication bucket anymore. The way people are engaging with the world has changed. It's not just person to person—now we have a whole new level of intelligence that we are working with, and we have to figure out how to best engage and communicate with that as well."** AI will have implications across wireless networks, augmented and virtual reality systems, audio signals, autonomous driving, robotics, security, and more.

With over 45,000 employees worldwide and a multitude of research divisions and innovative engineers at work, Qualcomm University Relations Programs Manager Adrian Nunez-Rocha says Qualcomm "has so many dimensions in terms of innovative technology and licensing that change how people are using technology. That's what makes our jobs so interesting."

MIT CSAIL: LECTURES, EVENTS & COLLABORATIONS

One aspect of Qualcomm's strategy is its almost 20-year relationship with MIT CSAIL. Adrian explains, "we gravitate toward CSAIL for a combination of reasons. We know we're connected with some top professors, the programs are really valuable for our researchers, and CSAIL Alliances allows us to have a connection and access point with MIT as a West Coast company." Emma adds, "CSAIL as an organization is super approachable, so whenever we don't know if there's a professor who's working on a technology that we're interested in, it's really convenient that we can just call up your team and ask."

For example, CSAIL Alliances connected Qualcomm with CSAIL Director and Professor Daniela Rus to work with her students on "autonomous driving projects related to decision-making in obscure areas," Adrian says, "meaning if your self-driving car is in the snow or in an area where there aren't a lot of lane indicators or signs." This was a challenge Qualcomm was working on at the time and their team was able to collaborate with Professor Rus's lab for several years to explore potential solutions. Not only did it offer them insight into the current research in the area, but the sponsored research arrangement also gave them direct access to Professor Rus, which Adrian cites as a huge benefit.

In addition, Qualcomm has benefited from the regular workshops and online talks CSAIL Alliances offers, such as the previous Byte Bites lecture series. Emma says, "Our engineers are constantly taking advantage of those and sharing that information internally. It's definitely an asset for us because there's always more to learn, and **academia is the forefront of learning what's the latest and greatest and how it works. We're very grateful for this continued education opportunity."** Qualcomm engineers have attended multiple CSAIL Alliances Annual Meetings, where they've met faculty and learned more about CSAIL research. Adrian hopes to take advantage of this benefit more in the future, "because I think that's what's going to give us more access to people making a decision to further invest in research at MIT."

NEXT STEPS: HACKATHONS & TESTING THEIR PLATFORMS WITH CSAIL RESEARCHERS

Building on Qualcomm's "developer-first mission," Emma explains, "we want to enable developers who are at the forefront of product creation with the tools they need to get that done." To do this, Qualcomm is currently focused on sharing their hardware development kits and suite of platforms with different types of people to "see what they can make with them and to encourage users to be innovative and find the next new thing with wireless communication technology," Emma says. One approach Qualcomm is using is hosting hackathons at various universities and innovation centers "to see what happens when we give someone one of these platforms." The hackathons Qualcomm has hosted so far have resulted in "the most amazing inventions that we've seen," and they're currently planning to host one such event at MIT CSAIL in 2026.

More broadly, the Qualcomm team is excited to provide their platforms to faculty and students "who want to do research or build it into their curriculums." Emma adds, "we are excited to see what comes from the students who are working with them every day, what the feedback is, what projects they come up with." Adrian highlights the various opportunities for fostering collaboration in technology and education, where students in engineering can request and experiment with Qualcomm hardware.

"Qualcomm has turned a page on how we're trying to impact not just business to business but business to young academic developers that can take this tool and not only actively use it today but maybe use it in their careers as they evolve." He emphasizes, "Qualcomm is open for business. If there are faculty or students that want to use our platform for very interesting projects and they need support, we will definitely consider that."

Overall, Adrian says Qualcomm has "a lot of respect for MIT. The research is top tier. Our scientists love and respect MIT, and CSAIL Alliances is a way of staying connected. We feel like we're part of the MIT family by being in CSAIL Alliances."

As they actively seek more ways to innovate alongside the MIT CSAIL community, Qualcomm is excited to spread their reach, extend a welcoming hand to students, and push forward the broad frontier of communication technology.