signify

Member Success Case Study

Signify

When you get a new idea or a flash of inspiration, you may picture a light bulb suddenly turning on over your head. There's a reason for this metaphor: The lighting industry has pioneered groundbreaking innovations, delivering far more than simple illumination. Lighting has the power to make people's lives safer and more comfortable, businesses and cities more energy-efficient and livable; and contributes to a more sustainable world.

About the Company

At the forefront of new developments in lighting is CSAIL Alliances member Signify. Signify (formerly Philips Lighting) is a world leader in lighting for professionals, consumers and for the Internet of Things (IoT). The company considers light an "intelligent language that connects us and conveys meaning."

The Signify Research U.S. Team is located in the heart of Cambridge, within walking distance of MIT. Signify Research has sponsored research across campus over the past five years. In 2020, they became CSAIL Alliances affiliate members because they wanted to collaborate more closely with CSAIL due to its great concentration on artificial intelligence (AI) and machine-learning research.

In CSAIL, broadly, Signify sponsors research in two spaces: "One is related to data fusion and extracting meaning out of sensor data, and the other is related to computer vision or deep learning applied to a number of applications. The activities in these areas are highly aligned with our vision of the company," says Dr. Dagnachew Birru, Senior Director and Head of the Data Analytics and AI Research Sector at Signify.

The Complexity of Today's Lighting Technology

You can do amazing things with lighting; it has many new applications that leverage AI and machine learning, digital lighting, IoT, Li-Fi, the cloud, edge computing and more to solve societal problems. As Dr. Birru explains, "Lighting is the most ubiquitous system in the world – it is everywhere. Without light, we cannot function. Now, imagine if every light is connected. It becomes a source of data that can link apps, devices and people. The company is developing innovative solutions to address the most vital needs of our society, truly redefining what lighting can do."

Jin Yu, IoT Data Analytics Team Lead at Signify Research, adds, "In our industry, the revolution from traditional lighting to digital lighting means it allows us to look at both the system data and the sensor data from different aspects, and gain insights to help our customers extract more value from their environments. Data analytics, machine learning and AI can help lead us to that."

For more information about CSAIL Alliances industry engagements, please visit:

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How Engagement with CSAIL Helps

Signify's sponsored research collaborations with CSAIL help to accelerate such advances in lighting with a focus on data and interconnectivity. The company meets frequently with CSAIL researchers and faculty in order to exchange ideas and make progress together.

"We want to be close to the projects, and we want to have the ability to observe and support them. The professors from CSAIL are engaged with us across the projects, and we've always had a good experience in the way they deliver on their commitments and also collaborate with us," says Principal Researcher Alexandru Darie, who serves as Signify's MIT relations coordinator.

Energy savings and sustainability are at the center of the company's strategy, and engaging with specific research projects in CSAIL helps Signify dig into data analytics for various applications, such as professional indoor lighting systems for offices and the retail and hospitality sectors. Other areas of interest include research in connected infrastructure, which informs Signify and its customers about space management, accounting for the number of people in a room, and smart city planning, where poles act as digital hubs.

Other Benefits to the Company

In addition to meeting with professors about sponsored research, affiliate-level Alliances member benefits have given Signify deeper access to other lab resources. "CSAIL has helped with the coordination of sitting in on some classes, which helps to improve our knowledge and skillsets," states Darie. The classes and workshops include topics like deep learning, image recognition and audio speech recognition.

Signify also finds benefit in attending Alliances members-only events. "Other advantages are being able to access the whole MIT community and attend the conferences and the annual symposium," Darie continues, "and now, of course, the webinars, online courses and virtual engagement. Even if you don't have specific research in mind, having a connection to CSAIL is still beneficial."

Through sponsoring research, their Alliances membership, and connecting with CSAIL researchers and students, Signify is lighting the way to a brighter future. "Overall, we always encourage MIT to find compelling applications and technology that can be solved with a combination of AI and connected lighting," says Dr. Birru. "I truly believe there is still a lot to be uncovered using the power of connected lighting."

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