



JACOBS SCHOOL OF ENGINEERING

APPLYING THE TOOLS TO LEARN

Stream Your Learning. Each year, employers in the San Diego region look to add 4,000 individuals to their technical workforce. Employers consider the best-prepared candidates those who possess greater problem-solving skills. Stream Your Learning (SYL) is a UC San Diego initiative that aims to increase the technical talent base in the region by specifically addressing the need for candidates with greater aptitude for problem-solving — a skill using higher-order thinking than memorization. SYL is a curriculum for precollege and college-level students and their teachers geared toward learning problem-solving.

What if there was an app for identifying when a student's most successful learning occurs? Students who properly structure their study habits and teachers who prepare lesson plans based on different levels of learning can improve outcomes. The *Learning Log* is an application we envision creating to assist students in categorizing the learning level each type of study activity focuses on and tracking the amount of time spent on each of those activities. The app will assist students in classifying their specific study strategies and identifying challenges. Ultimately, this education technology will bridge the gap between cognitive learning models and study habits in order to ensure increased problem-solving skills.

Developing solutions for our community means investing in opportunities to increase critical thinking skills of our students. We seek support for the *Learning Log* app development, incorporating emerging technologies, to improve the educational experience.

At UC San Diego, we believe that what we don't know today will forever change our tomorrows. Empowered by generosity and fueled by curiosity, we are unafraid to chase the unknown — to ask the questions no one has asked before and to push the boundaries of possibility. Together, we unite diverse people and unconventional perspectives to propel limitless impact. Because we know that when we come together, nothing is beyond us.

#12 IN NATION

Best engineering schools
(*U.S. News & World Report*, 2023)

4,000+

Individuals with problem-solving skills needed to enter the technical workforce each year in the San Diego region

1,000+

Companies utilize, or have utilized, technology created at UC San Diego



LEARNING ENHANCEMENT

Join us with a gift to support software development of the Learning Log, a learning enhancement application. This application will assist students and their teachers in determining which study strategies are most beneficial to learning outcomes.

DEVELOPING THE LEARNING LOG

A leadership-level gift to support development of the *Learning Log* will provide resourcing from three distinct roles, engaged with Jacobs School to focus on this project specifically.

» **A software engineer** specializing in application development. The application will assist students in reflecting on their learning processes, aligning their study practices and articulating their learning specific strategies and challenges to their teachers, all to enhance their learning outcomes. The timeline for development of this app is 18 – 24 months.

» **A machine learning expert** in incorporating and training artificial intelligence (AI) models. These AI models will be trained to reliably categorize the study activities of student users into appropriate learning levels to ensure students are aware of what activities best support a higher level of learning and improve outcomes. These models will also be trained to assist teachers in designing lesson plans that ensure students are reaching the critical thinking level of learning.

» **A user interface expert** to ensure development of a powerful but user-friendly application. The *Learning Log* app is expected to be extremely intuitive to ensure ease of use for increased student participation and to support teachers in their vital role.

ENRICHING OUR CAMPUS AND COMMUNITY

Interest in Stream Your Learning has expanded throughout the region, into other states and internationally. The *Learning Log* app will benefit students at the precollege and college level in a wide variety of learning environments — bridging the program’s resoundingly successful launch to new opportunities for impact at scale.

Together with your philanthropic support, we can continue to support innovation and enhance learning for a new generation of problem-solvers at the forefront of research and practice as part of the technical workforce striving to make the world a better place.

Learn more at giving.ucsd.edu.

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