

COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE LABORATORY

The Computer Science and Artificial Intelligence Laboratory (CSAIL) (<http://www.csail.mit.edu>) at MIT pioneers research in computing and AI that improves how people live, work, and learn. CSAIL's mission is to push the boundaries of knowledge, train brilliant students in research, collaborate with like-minded organizations, and create technology with widespread societal benefits. CSAIL engages in cutting-edge work that covers a comprehensive range of topics.

Research Focus Areas

- **Artificial Intelligence (AI):** CSAIL explores the frontiers of AI, developing systems that exhibit intelligent reasoning, perception, behavior, and learning. Research areas include computational biology, computer graphics, natural language processing, computer vision, machine learning, medical informatics, and robotics.
- **Systems:** CSAIL's focus is on understanding the fundamental principles that underlie computer hardware and software. Research areas include compilers, computer architecture, chip design, operating systems, programming languages, and computer networks.
- **Theoretical Computer Science:** CSAIL's work aims to develop the foundations of computation, including algorithms, complexity theory, computational geometry, cryptography, distributed computing, information security, and quantum computing.

Educational Opportunities and Collaborations

CSAIL is deeply invested in fostering the next generation of technology leaders. Undergraduate students have the opportunity to engage in research through the Undergraduate Research Opportunities Program (UROP), while graduate students may participate in research assistantships. CSAIL's graduate community is diverse, with students from Electrical Engineering and Computer Science, Mathematics, Aeronautics and Astronautics, Brain and Cognitive Sciences, Mechanical Engineering, and the MIT-Harvard Health Sciences and Technology Program.