School of Engineering

Department of Computer Science



# Master's

We provide students with the best of both worlds: a student-centered experience at a top-notch research university. You'll immerse yourself in cutting-edge, interdisciplinary work led by innovative faculty.

Master's degrees require a minimum of 30 credits and the fulfillment of at least 10 courses at the 100-level or above with grades of S (satisfactory) or at least a B-. Program requirements may vary. Our master of science programs in Computer Science allow you to study part-time, so you can get back into the job market with your updated skills. **All of our MS programs can be taken on a part-time basis.**

## MS in Artificial Intelligence

Designed for students with a background in computer science, mathematics, or a related technical field, the MS in Artificial Intelligence curriculum covers AI concepts and techniques — including machine learning, deep learning, natural language processing, computer vision, and knowledge representation. Students will develop an ability to understand, implement, and deploy a wide range of AI technologies across disciplines, and they'll have the opportunity to work closely with faculty every step of the way.

## MS in Bioengineering (Bioinformatics track)

The Bioengineering (MS) program provides a broad engineering and biotechnology curriculum, while offering a focus on a specific engineering track that best fits students' interests and career choices. This combination

gives our bioengineering graduates professional flexibility, a distinct competitive advantage in the ever-changing field of bioengineering. Computer Science is the home department for students studying in the Bioinformatics track.

## MS in Computer Engineering

The complexity of software and hardware systems calls for today's computer engineers to be concerned with power consumption, security, and reliability not just functional correctness. This master's program trains students to design hardware, software, and networking systems for the computers of today and tomorrow. The Department of Computer Science and the Department of Electrical and Computer Engineering jointly administer this degree.

## MS in Computer Science

Students in the MS degree program in Computer Science can choose to complete a master's thesis or a course-based study track. The MS program can be completed in one year, or two years with an optional thesis. In this program, students can pursue interdisciplinary collaborations within Tufts School of Engineering and across the university. The online master's program in Computer Science offers a 100% online degree that can be completed in under two years.

## MS in Computer Science - Online

For futuristic thinkers with inquisitive minds, the Tufts online Master of Science in Computer Science (MSCS) program provides students with the tools to develop innovative solutions for today's digital challenges. You'll benefit from working across disciplines that reflect a real-world need for computer-science solutions and expertise. From building applications to developing large-scale software systems, you'll gain new skills and experience unique learning opportunities across an array of areas.

## MS in Cybersecurity and Public Policy

The Master of Science program in Cybersecurity and Public Policy integrates technology and policy at Tufts. Students focus on international issues and responses in a wide range of in-depth cybersecurity policy focus areas, ranging from development to national security. This is a joint program between the Department of Computer Science and The Fletcher School.

## MS in Data Science

The Master of Science program in Data Science prepares students with bachelor's degrees in STEM fields to prepare for careers in data analysis and data-intensive science. The program focuses on statistics and machine learning, with courses in data infrastructure and systems, data analysis and interfaces, and theoretical elements. The Department of Computer Science and the Department of Electrical and Computer Engineering jointly administer this degree.

## MS in Data Science - Online

The Tufts online Master of Science in Data Science (MSDS) program prepares you for a next-generation career in data analysis and data-centric problem-solving—or for further study in the data science field. Through the program's rigorous curriculum, you'll be exposed to state-of-the-art ideas. You'll also be fully immersed in data analysis principles, methods, and practices as you build the analytic expertise to guide high-level, data-driven decision-making and look for actionable insights that could make a difference in the world. Administered jointly by the Departments of Computer Science and Electrical and Computer Engineering, and featuring courses from both, along with the Department of Mathematics, the MSDS program is interdisciplinary in nature and forward-thinking in its approach.

## MS in Human-Robot Interaction

Human-Robot Interaction is an interdisciplinary effort aimed at understanding and improving all aspects of interactions between humans and robots. It draws on knowledge from computer science, mechanical and electrical engineering, as well as psychology, philosophy, anthropology, legal fields, among various others. The Department of Computer Science, the Department of Electrical and Computer Engineering, and the Department of Mechanical Engineering each now offers an MS in Human-Robot Interaction.

## MS in Software Systems Development

The Master of Science in software systems development prepares students for careers in a fast-growing technology market. Students will learn how to design, build, and test systems programs in C and C++ through a set of courses containing practical experience in all aspects of C/C++ software development. Students may choose between completing a master's thesis or a course-based study track.

## Dual Degree Master's Program (with Tufts Gordon Institute)

Develop your innovation, leadership and management skills and build your technical depth with the Dual Degree Master's Program. You'll earn two degrees: an MS offered by the Department of Computer Science, and an MS in Engineering Management (MSEM), Innovation & Management (MSIM), or Technology Management & Leadership (MSTML).

Learn more about the Dual Degree Master's Program and application requirements or contact tgi@tufts.edu for more information.