

COMPUTER SCIENCE

MASTER OF SCIENCE IN COMPUTER SCIENCE

PhD IN COMPUTER SCIENCE

Loyola University Chicago's Department of Computer Science is ideally suited for working professionals and recent graduates. Its programs provide a strong balance between foundational knowledge and contemporary practice.

The MS in Computer Science prepares students for a broad range of careers in research, education, and industry. The curriculum provides a strong foundation in the core areas of contemporary computer science such as algorithms, networks, object-oriented development, programming languages, and systems. Electives allow you to specialize in areas such as artificial intelligence, computational neuroscience, human-computer interaction, machine learning, and parallel and distributed computing.

The PhD in Computer Science helps students develop research proficiency in conceptualizing and implementing computer models and tools that address societal needs. This proficiency will enable students to analyze and critically review the scientific work in their area of interest and in the broader field. As students progress through the program, they will demonstrate original thought by expanding the boundaries of their field, clearly and convincingly communicating their findings.

PROGRAM STRUCTURE

- Average time to completion:
MS: 16 months (full time), 2–3 years (part time)
PhD: 4–5 years (full time), 6–8 years (part time)

Most on-campus courses meet one afternoon or evening per week. Online options are also available. The classes can be completed with on-campus courses or a combination of on-campus and online courses.

For the PhD, credits from past coursework may be transferred. The final stage of the PhD is a dissertation on a chosen research topic in the field.

INTERNSHIPS/RESEARCH OPPORTUNITIES

Students can customize their degree according to their research and professional interests. There are numerous options for internships and independent study, including programming, research, or a service-oriented project.

EXPECTATIONS AFTER GRADUATION

Graduates have been successful advancing professionally and obtaining employment in leading software development and IT-focused companies. These programs have been designed in close collaboration with industry via the department's Program Advisory Committee.

Career services are available at [LUC.edu/career](https://luc.edu/career).

PROGRAM DISTINCTIONS

As a CS student, you'll have access to virtual machines (hosted in the department) and other cloud-based development tools (by subscription as needed). The combined solution includes disk space for programming assignments and other work. The department and University provide state-of-the-art computing labs with Mac, Windows, and Linux workstations.

You will also have access to experimental systems, including computational clusters, embedded systems, and 3D printing/fabrication. Loyola offers high-speed internet and is part of the Internet2 consortium; all of its campuses are interconnected by a high-speed fiber optics network. Each campus has computing centers equipped with extensive software options and standard programming environments.

The department also has research and partnerships in high-performance computing, which gives us the ability to request access time on national supercomputers and cloud-computing resources.

Learn more at LUC.edu/cs.

FACULTY

Computer Science faculty members are both passionate about their teaching and dedicated to their research. Faculty members receive recognition for the quality of their research by regularly obtaining competitive grants from agencies such as the National Science Foundation, the Air Force Office of Scientific Research, and the National Security Agency, as well as industry groups. Areas of faculty interest include algorithms, databases, networks and security, programming languages, software engineering, artificial intelligence, machine learning, natural language processing, information retrieval, human-computer interaction, cloud and high-performance computing, mobile and pervasive computing, embedded and distributed systems, robotics, bioinformatics, computational biology, computational neuroscience, digital music and humanities, computer science education, and broadening participation in computing/STEM.

PREREQUISITES

You should have a working knowledge of programming to be admitted into the MS or PhD program, but introductory courses may be available. Please visit LUC.edu/cs for more information.

FINANCIAL AID

Begin the financial aid process by completing your Free Application for Federal Student Aid (FAFSA) at fafsa.gov.

The Graduate School has limited funds available for financial assistance. Financial aid from Loyola's Financial Aid Office will not impact your ability to apply for financial aid through the Graduate School. To learn more about these financial aid opportunities, visit LUC.edu/finaid/graduateschool.

LEARN MORE

APPLY

gpem.LUC.edu/apply

For all application requirements and deadlines, please visit LUC.edu/gpem/info.

CONTACT INFORMATION

For further information about the academic program or to arrange a visit, please contact:

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Send all supporting documents to:

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