



THE EDGE IN KNOWLEDGE

Master of Science in Software Engineering



Department of Computer Science

College of Computing Sciences

New Jersey Institute of Technology

WHY PURSUE A MASTER'S DEGREE IN SOFTWARE ENGINEERING?

Software engineering is about the concepts, techniques and skills needed to design and build large, modern software systems. Software engineering encompasses a wide range of topics, including software specification, analysis, design, implementation, verification, deployment, reuse, and the evolution of software products and product lines. Software engineers are computer professionals who understand the development of industrial software systems as a rigorous and who have a firm grasp of its underlying principles and methods. This program will prepare you for a professional career developing large software systems or managing teams of developers. Software is playing a steadily increasing role in all branches of our economy. Software companies are experiencing a global expansion, fueled by strong demand and by the availability of software engineering expertise. The forecast is for long-term strong demand for software engineers.

WHY STUDY SOFTWARE ENGINEERING AT NJIT?

NJIT is one of the few national universities in the U.S. that offers an MS in Software Engineering. NJIT is located in the nation's largest high technology metropolitan area, offering many employment opportunities for software engineers. And with one of the most computing intensive campuses in the world, NJIT has pioneered the application of new technologies as learning tools. The MS in Software Engineering is offered by NJIT's College of Computing Sciences, which educates one of the largest groups of information technology students in the nation. NJIT's College of Computing Sciences has an outstanding faculty, dedicated to preparing students for exciting careers in the computing sciences.

DEGREE OVERVIEW

The MS in Software Engineering encompasses all the key aspects of large-scale software development specifying requirements, designing, building, testing, enhancing, and maintaining software systems and applications. Students also learn project management and get hands-on experience working on a team project.

DEGREE REQUIREMENTS: 33 CREDITS

6 Core

CS 673	Software Design & Production Methodology
CS 683	Software Project Management
CS 684	Software Testing & Quality Assurance
CS 685	Software Architecture
CS 686	Software Project– Practice & Experience
IS 676	Requirements Engineering

5 Electives

Selected from an approved list

REAL-WORLD & RESEARCH OPPORTUNITIES

There are abundant co-op and internship opportunities exploring cutting-edge science and technology. Students also have opportunities to get involved in groundbreaking research with NJIT faculty in all areas of computing.

FINANCIAL AID

Student Financial Aid Services helps provide NJIT students with every opportunity to obtain funding to support their educational costs. To apply for financial aid please visit: njit.edu/financialaid/

OPPORTUNITIES FOR EMPLOYMENT

According to the US Department of Labor, two of the top 10 fastest growing and high paying occupations projected through 2016 are computer software engineers, applications (rank #5) and computer software engineers, system software (rank #8). Combining these categories makes Software Engineering the number one fastest growing occupation.

The Occupational Outlook Handbook of the U.S. Bureau of Labor Statistics shows computer software engineering to be one of the main growth occupations. According to the handbook:

- software engineering is projected to be one of the fastest-growing occupations, adding the most new jobs over the period 2006-2016;
- employment of software engineers will increase by 38% over 2006-2016;
- about 324,000 new software engineering jobs will be created during 2006-2016.

ADMISSION REQUIREMENTS

Applicants are expected to have:

- An undergraduate degree in computer science or a related field, with a minimum GPA of 3.0 on a 4.0 scale.
- GRE scores (Verbal 143, Quantitative 151, Analytical 4.0) for all foreign degree holders.
- TOEFL scores (minimum of 79) for all visa holders.

Applicants not satisfying these criteria will be considered for conditional admission on a case-by-case basis and may be required to complete a bridge program outlined in their acceptance letter.

FOR MORE INFORMATION CONTACT:

ccs-advising@njit.edu
ccs.njit.edu/academics/graduate/ms-se/index.php

TO APPLY:

Office of Graduate Admissions
(973) 596-3300
njit.edu/admissions/graduate/apply_online.php