

THE EDGE IN KNOWLEDGE

# Master of Science in Computer Science



Department of Computer Science College of Computing Sciences

New Jersey Institute of Technology

# WHY PURSUE A MASTER'S DEGREE IN COMPUTER SCIENCE?

Careers in computing are projected to be among the fastest growing professions through 2012. Because computer technology is embedded in so many products, services, and systems, computer scientists are needed in almost every industry. New opportunities develop rapidly as each change or improvement in technology engenders new areas of specialization. Professionals holding a Master's Degree in Computer Science are on the cutting edge in their field and have a competitive advantage in the market place.

# WHY STUDY COMPUTER SCIENCE AT NJIT?

NJIT also has a long history of innovation in on-line communications. With one of the most computing intensive campuses in the world, NJIT has pioneered in the applications of new technologies as learning tools. The university educates one of the largest groups of information technology students in the nation. Not coincidentally, New Jersey is one of the leading states for computing and high technology businesses. Thirty of the nation's fastest growing technology companies are based in the state, and New Jersey ranks 7th in the nation as a cyberstate and 8th for venture capital investment—\$3.5 billion – in information technology and software. New Jersey offers the second highest wages in the nation for technology workers.

# **COMPUTING RESOURCES**

The computer science department maintains and offers computing facilities for its students, faculty, and staff. These facilities include laboratories housing research in areas of computer science such as: networking, real-time systems, hypermedia, parallel processing, and collaborative systems. Users have access to the state-of-the-art software and hardware including Oracle database, UNIX-based workstations and Microsoft Windows PCs supported by several file and compute servers. Internet access, departmental intranets, and conferencing systems provide an integrated infrastructure for supporting teaching and research.

# **DEGREE REQUIREMENTS: 30 CREDITS**

4 Core

CS 610 Data Structures & Algorithms

Select 3 courses from:

- CS 630 Operating Systems Design
- CS 631 Data Management Systems Design
- CS 650 Computer Architecture
- CS 656 Internet & Higher-Layer Protocols

#### 6 Electives

Selected from an approved list

#### **AREAS OF SPECIALIZATION**

- Computer Networking & Security
- Databases & Data Mining
- Image Processing & Pattern Recognition
- Computer Algorithms
- Bioinformatics

# **REAL-WORLD & RESEARCH OPPORTUNTIES**

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.

# FOR MORE INFORMATION CONTACT:

ccs-advising@njit.edu cs.njit.edu/

#### **DEVELOP NEW SKILLS & KNOWLEDGE**

- Design, develop, analyze, and implement computing, software, and network security systems.
- Design, develop, analyze, and implement computer algorithms to solve multi-faceted computing problems.
- Work with operating systems, databases, firewalls and web servers.
- Write programs for computer gaming, mobile computing, and wireless systems.

# **POSSIBLE CAREER OPTIONS**

- Computer Scientist
- Software Engineer
- Network Designer
- Database Designer

# PART TIME STUDY

Evening, weekend, and online courses accommodate students who may pursue the degree part-time.

#### **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/

#### **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.

# TO APPLY:

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