

## YOUR GRADUATE CAREER IN COMPUTER SCIENCE

*Did you know...* that New Jersey is home to over 500 research and development corporations?



*Photo of our NSF-funded CAVE™ Automatic Virtual Environment available for graduate research.*

*Did you know...* that New Jersey accounts for 10% of all research and development in the United States. 70% of industry positions in NJ in the next 10 years will be careers requiring degrees in fields related to Computer and Information Systems.

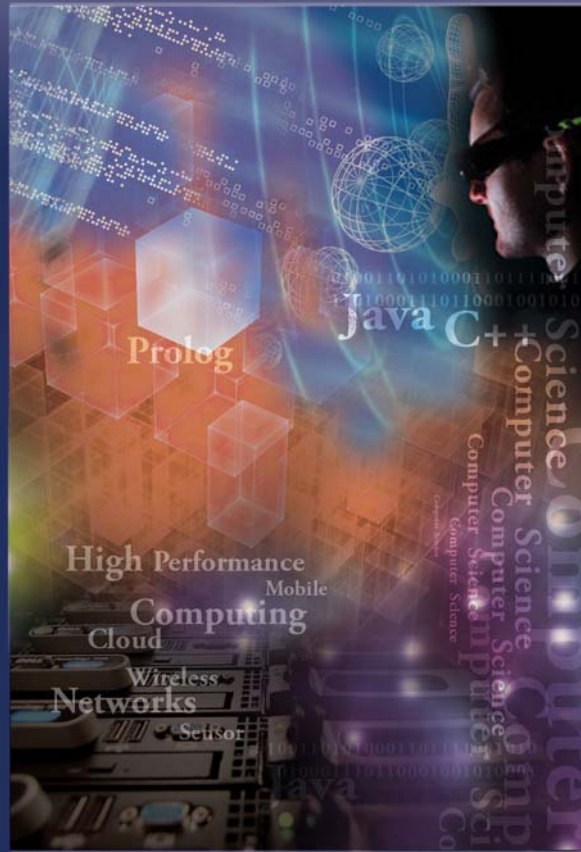


*Photo of our NSF-funded 1040-core supercomputer, Puma, available for graduate teaching and research.*

<http://cs.kean.edu>



KEAN  
UNIVERSITY  
www.kean.edu



## M.S. in Computer Science

Department of Computer Science

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## DEPARTMENT OF COMPUTER SCIENCE

### COLLEGE OF NATURAL, APPLIED, AND HEALTH SCIENCES

### *Master of Science in Computer Information Systems @ Kean*



The M.S. program in Computer Information Systems offers students the valuable opportunity to learn the theory, systems, languages, and analysis of computer systems, and combine it with an advanced understanding of design and implementation of information systems.

With a M.S. in Computer Information Systems, graduates are ideally suited for professional careers in software design and development, human computer interface, and software assurance.

Building on a solid undergraduate foundation in combining theory and practices, the M.S. in CIS complements the undergraduate B.S. in Computer Science.

Our students enjoy dedicated faculty, and an immersive learning environment for knowledge building and research.

By 2018, the United States will have 1.4 million computer specialist positions requiring advanced computing insight and knowledge.

The U.S. will only be able to provide an estimated 1/3 of the university graduates needed\* for those 1.4 million professional positions.

Be part of the solution to this problem.

\*By the Numbers, NCWTF



## DEGREE REQUIRMENTS:

- Plan A (thesis) 30 credits:  
15 core, 9 elective, & 6 thesis credits.
- Plan B (courses only) 30 credits:  
15 core, 12 elective, & 3 capstone credits
- 5-year M.S./B.S. program students and Plan B students must take 2 additional credits in Student Teaching Practicum.

Core Courses (15 credits):

- Advanced Analysis of Algorithms
- Software Engineering
- Software Assurance
- Database Management Systems
- Current Trends in Enterprise Systems

# HOW TO COMPLETE YOUR M.S. IN COMPUTER INFORMATION SYSTEMS @ KEAN

**Regular Admission.** Apply to Kean's Nathan Weiss Graduate School for admission to the M.S. in Computer Information Systems program. A bridge program is available for students with limited background in Computer Science at the undergraduate level.

**Early Admission.** Be a **junior** majoring in Computer Science or Computer Science - Information Systems option at Kean, with a 3.00 GPA. Complete the *Petition for Early Admission to the M.S. CIS Program*, available online or in the department, and submit it to the Graduate Program Coordinator in the Department of Computer Science.

During your **senior** year at Kean, be sure to take two graduate courses that are available to Kean undergraduates who are planning on enrolling in the 5-year M.S./B.S. program.

**Receive your B.S. in May, and your M.S. the following May!**

The following courses must be taken before entering graduate program:

1. CPS 3440 Analysis of Algorithms,
2. CPS 3498 Computer Security, &
3. MATH 2412 Calculus II

## WHY GRADUATE STUDY?

A B.S. in Computer Science or related fields, followed by a M.S. in Computer Information Systems permits the greatest professional opportunities to be provided to students upon graduation. Advanced topics in both software engineering theory and practice will enhance and refine student expertise while improving career advancement potential for industry professionals.

Graduate work at Kean provides a chance for longer, more detailed research and projects, which may include Kean's supercomputer - Puma, the immersive Virtual Environment (CAVE™), both funded by grants from the National Science Foundation (NSF) or research work in Kean's Multimedia and Network Laboratory or with the Computational Science Group.

## OUTSTANDING FACULTY

Students may conduct supervised research in the following areas:

- **Networks & Communications**
- **Human Computer Interaction**
- **Multimedia Systems**
- **Virtual Reality**
- **Data Mining**
- **Computer Science Education**
- **Computer Graphics**
- **Enterprise Database Systems**
- **Modeling and Simulation**
- **Algorithm Analysis**
- **Software Security and *many more!***

Please contact: [compsci@kean.edu](mailto:compsci@kean.edu) for more information.