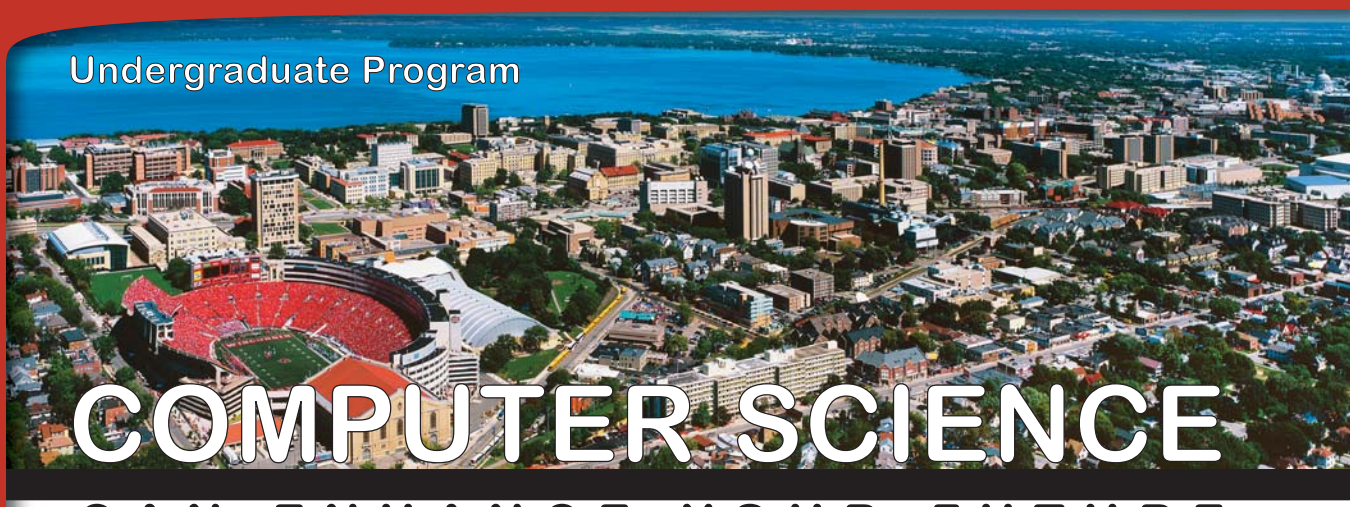
Undergraduate Program



COMPUTER SCIENCE

CAN ENHANCE YOUR FUTURE

Software Engineer is #1 job in U.S. for compensation, growth & job satisfaction

Money Magazine, May 2006

Top 5 Reasons To Study Computer Science*

1. Computing enables you to make a positive difference in the world.

Computer technology is part of just about everything we do, from the cars we drive to the movies we watch, to the ways businesses deal with us. In fact, computing drives invention in fields as diverse as engineering, business, entertainment, education, the arts, and the sciences (human genome project, AIDS vaccine research, environmental monitoring and protection to mention a few). If you want to make a positive difference, consider a CS major or Certificate.

2. Computing offers many types of careers.

Computing careers include designing new products, enhancing a wide range of existing products and services, creating innovative websites, research into future technologies, network or systems analysis and advancing other fields. These careers require thinking creatively about system design, finding clever solutions to problems, exploiting the best engineering practices, maintaining a high level vision of how all the parts fit together and being sensitive to a variety of concerns. Don't miss out on pursuing the wide range of open positions available to you.

3. Computing has space for both collaborative work and individual effort

Computing is often about being part of a team that requires people with many different kinds of skills. Yet there is also plenty of space for individual flare and imagination.

4. Computing offers great opportunities for creativity and innovation.

Innovation is everywhere, from the iPhone™ to robots to social networking to business innovations. Designing high-quality solutions is a highly creative activity, and computing supports original work in many other fields. The best solutions in computing exhibit high levels of elegance and beauty. Creativity and innovation are two reasons that computing careers are among the highest paid and the highest job satisfaction.

5. Opportunities have no boundaries

Computing is a field where it is often impossible to predict what will happen next. Expertise in computing can increase the excitement and reward in your life's work. A CS major or Certificate will provide you with a foundation of knowledge that will serve as a competitive advantage for you in whatever field you choose.

*Adapted from the ACM website, http://computingcareers.acm.org/.
Visit this site for further computing career information.

Banner image courtesy of Blakeway Worldwide Panoramas, Inc. http://www.panoramas.com

Department of Computer Sciences

www.cs.wisc.edu

COMPUTE
AT THE UNIVERSI

Major in CS

Computing careers require math aptitude and creative problem solving. If you have these abilities and the requisite education, you can work and live where you want; telecommuting is becoming widespread.

Adapted from Money Magazine, May 2006

Located in the College of Letters and Sciences, Computer Sciences offers a B.S. or a B.A.degree or a double-major with any other field.

For over four decades we have ranked in the top twelve computer science departments nationally. Our state-of-the-art curriculum is continually updated by the faculty research experience. It includes elective project-oriented courses in computer animation, computer architecture, databases, games, graphics, networking, operating systems, programming languages and compilers, and software engineering. These systems courses are complemented by undergraduate analysis courses in algorithms and complexity, systems performance modeling, numerical analysis, and optimization.

CS majors obtain broad-based fundamental knowledge in the field, with opportunities for research, awards and scholarships. Our graduates are well-prepared for the best graduate schools as well as for rewarding careers at a variety of vibrant companies including Epic, Google, Microsoft and new start-ups.

For more information, please see one of our Undergraduate Advisors or visit:

http://www.cs.wisc.edu/ugac/

Year 1: CS 302, CS 252 and Math 221 and 222; **AP or 3rd semester**: CS 367; Math 240
consider adding: CS 202 and/or the one-credit CS 304 WES-CS supplement to 302

Attend our undergraduate events including the CS Possibilities Night in March!
(watch www.cs.wisc.edu for details)

Jason Franklin
(BS '05)
Graduate Student
Carnegie Mellon Univ.

Renata Aryanti
(BS '07)
Technical Yahoo!
Cloud ComputiingData
& Infrastructure

Undergraduate pizza dinner 2006.

Nicholas Rasmussen (BS '01)
Principal R&D Engineer
Industrial Light & Magic
2008 Academy Award for Science and Engineering

R SCIENCE
TY OF WISCONSIN

Perry Kivolowitz

Or Enhance Your Major With a CS Certificate

A background in computer science provides you with employable skills as well as a significant leg up on developing innovations in virtually every other field.

Majors ranging from Communication Arts to Engineering Mechanics find that our Certificate program offers a significant background in computing with a course load that may be easier to fit into your schedule than the full computer science major.

To earn the CS Certificate, you take two introductory courses (CS 302 and CS 367), and then select at least four additional courses that best fit your major and interests – at least two at the junior/ senior level. CS advisors will help you select from the wide variety of courses we offer.

Our certificate recipients enthusiastically report that their CS background creates new opportunities in graduate school as well as in their career positions.

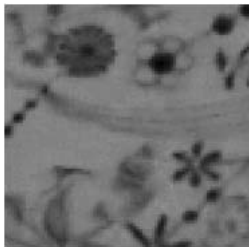
For further information please see:
http://www.cs.wisc.edu/ugac/cert.html
or talk to a CS Undergraduate Advisor:
http://www.cs.wisc.edu/ugac/advisors.html

Interested in a broad overview of computing?

CS 202
focuses on computing concepts and principles

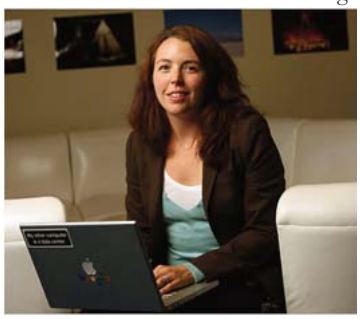
COMPUTER SCIENCE

Social Robots



Micro-cameras: Original image (left) and after denoising (right)

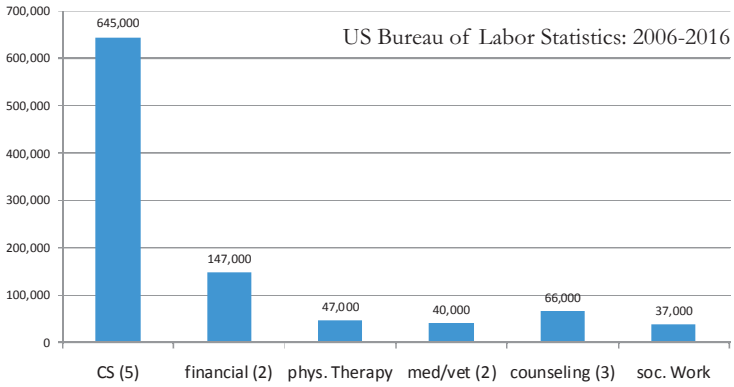
Data Sleuths in an Internet Age



Frequently Asked Questions*

1. Is there a shortage of computer professionals since the dot.com bubble burst in 2000?

Yes! An article in the July 24, 2006 issue of Forbes cites "U.S. businesses will need 135,000 new computer professionals each year, but colleges and universities are graduating only about 49,000 computer science majors annually" – less than half the number needed. And projections from the U.S. Bureau of Labor Statistics indicate strong growth over the next seven years Thus, job prospects for graduates in the computing disciplines are expected to remain excellent throughout the next decade.



2. Why are so many new jobs being created in the U.S.?

The opportunities for information technology professionals are expanding in many countries and many of the most rewarding computing jobs are being created in the United States. Firms are hiring in the U.S. because U.S. workers are highly skilled and because understanding U.S. culture is necessary when designing software for the U.S. market.

Steps students can take to prepare for successful employment in IT occupations include obtaining a strong educational foundation, learning the technologies used in the global software industry, keeping skills up to date throughout one's career, developing good communication and teamwork skills, and becoming familiar with other cultures.

3. Why are salaries in the U.S. continuing to rise rapidly when there is competition from overseas?

Hiring overseas isn't slowing the rapid rise in U.S. salaries for the simple reason that companies seek to maximize return rather than to minimize cost. Good software developers generate far more value for their companies than they cost, even at the high salaries that such positions command in the United States.

4. Why are computing jobs collaborative and interesting?

Computing professionals often work in teams. Designing a successful product requires effective communication not only among the members of the development team but also with the eventual users. Employers routinely cite good communication skills as an essential requirement for success in the field.

Software development or systems design is also a highly creative activity. There is very little that is mechanical about software development — if there were, those aspects of the discipline would have been automated years ago.

*Adapted from http://computingcareers.acm.org/

The U. S. Dept of Labor spotlights network systems and data communications as well as computer-software engineering among the occupations projected to grow most explosively by 2016

Time.com 5/25/2009