A major in computer science provides professionals with a solid foundation in the general areas of organization, processing, utilization, and communication of information. Within these areas, the trained computer scientist can elect to specialize in many sub-areas, which can draw upon expertise in either software or hardware.

**Computer Science Option**

This option has a technical and theoretical emphasis providing students comprehensive understanding of software engineering, computing techniques and the underlying theories. Graduates will develop skills relevant to the analysis, design, and implementation of sophisticated software/hardware systems and communication networks.

**Computer Information Systems Option**

The analysis and design of information systems with an emphasis on managing, storing, transmitting, and providing ready access to information is the key to the CIS option. Graduates will develop skills relevant to the analysis, design, and implementation of sophisticated information systems.

**RELATED MAJOR SKILLS**

**Organizing/Research Skills**
- Gathering information
- Comparing and summarizing
- Problem solving
- Designing and directing projects
- Working in groups
- Organizational Skills
- Detailed analysis
- Writing and editing

**Problem Solving Skills**
- Algorithm Development Ability
- Methodology of Problem Solving by computer
- Applications Programming in several languages
- Ability to master new computer languages and methodologies

**Critical Thinking Skills**
- Adapting ideas
- Seeing connections
- Questioning conventions
- Arguing logically
- Generating new ideas
- Thinking independently
- Working with self-direction
- Precise analytical reasoning
- Statistical analysis
CREATING OPPORTUNITIES IN YOUR MAJOR

- Talk with Career Services, faculty, and alumni about achieving your career goals
- Gain relevant experience through internships, part-/full-time jobs, and volunteer opportunities
- Work with Career Services and your departmental faculty coordinator for internship information
- Job shadow and conduct informational interviews with professionals in the field
- Utilize the Hire-a-Falcon Mentor Network
- Learn how to write technical reports
- Have the ability to work alone or as part of a team
- Have a proficiency in computer languages
- Prepare electronic data files
- Obtain experience processing data on computers
- Work part-time or as a volunteer in a computer firm or computer science department
- Repair electronic appliances and other mechanical gadgetry
- Join a computer club or organization
- Read computer publications and be up-to-date on new computer technology
- Consider having a double major in business or accounting for business applications or in math or engineering for scientific applications
- Consider getting your MBA for promotion to management
- Get experience as programmer, systems analyst, or web designer
- Use the campus web space, create your own web page and web portfolio
- Obtain a position with IT Services or Frednet
- Become a member of TLC (Technology Leadership Cadre)
- Get involved with the student ACM (National Association for Computing Machinery)

CAREER OPPORTUNITIES

<table>
<thead>
<tr>
<th>Application Development</th>
<th>Management</th>
<th>Networking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Consultant</td>
<td>Database Manager</td>
<td>Network Administrator</td>
</tr>
<tr>
<td>Programmer Analyst/ Senior Programmer Analyst</td>
<td>Data Processing Department Manager</td>
<td>Network Service Analyst</td>
</tr>
<tr>
<td>Senior Information Application Consultant*</td>
<td>Electronic Data Processing Manager</td>
<td>Network Service Engineer</td>
</tr>
<tr>
<td>Systems Analyst/ Senior System Analyst*</td>
<td>Operations Manager</td>
<td>Network System Consultant</td>
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<tr>
<td></td>
<td>Product Development Manager</td>
<td>Network Systems Engineer</td>
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<td></td>
<td>Project Leader/ Manager</td>
<td>Technical Advisor</td>
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<tr>
<td></td>
<td>Systems Manager</td>
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<tr>
<td></td>
<td>Technology Human Resources Manager</td>
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</tbody>
</table>
**COMPUTER SCIENCE AND INFORMATION SYSTEMS MAJORS**

211 Hagestad Hall
UW-River Falls • 410 South Third Street,
River Falls, WI 54022-5001 • (715) 425-3572
www.uwrf.edu/career

**CAREER OPPORTUNITIES (continued)**

<table>
<thead>
<tr>
<th>Education</th>
<th>Additional Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Professor</td>
<td>Animator</td>
</tr>
<tr>
<td>Education Consultant</td>
<td>Buyer Technical Acquisitions Specialist</td>
</tr>
<tr>
<td>High School Teacher</td>
<td>Chief Information Officer</td>
</tr>
<tr>
<td>Data Management:</td>
<td>Computer Aided Designer</td>
</tr>
<tr>
<td>Data System Consultant</td>
<td>Computer Applications Engineer</td>
</tr>
<tr>
<td>Database Administrator/</td>
<td>Computer Programmer</td>
</tr>
<tr>
<td>Senior Database Administrator</td>
<td>Computer Service Technician</td>
</tr>
<tr>
<td>Database Engineer</td>
<td>Computer Support Specialist</td>
</tr>
<tr>
<td>Database Systems Engineer</td>
<td>Computer Systems Engineer</td>
</tr>
<tr>
<td>Production Management:</td>
<td>Database Analyst</td>
</tr>
<tr>
<td>Production Management Analyst</td>
<td>Data Reduction Analyst</td>
</tr>
<tr>
<td>Production Scheduler</td>
<td>Desktop Solutions Consultant</td>
</tr>
<tr>
<td>Production Service Technician</td>
<td>Electronic Data Processing Auditor</td>
</tr>
<tr>
<td>Project Management Coordinator</td>
<td>Electronics Engineer</td>
</tr>
<tr>
<td>Senior Production Service Technician</td>
<td>Electronic Publishing Coordinator</td>
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<tr>
<td></td>
<td>Hardware Service Technician</td>
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<tr>
<td></td>
<td>Hardware/Software Marketer or Salesperson</td>
</tr>
<tr>
<td></td>
<td>Information Systems Specialist</td>
</tr>
</tbody>
</table>

*Amount of education may vary depending on the level of the position*

**CAREER RESOURCES**

- **UWRF Computer Science and Information Systems Department Website:** www.uwrf.edu/computer-systems
- **Career Services Website:** www.uwrf.edu/career
- **Hire-a-Falcon/UWRF Mentor Network (Online Job Searching Website):** www.uwrf.edu/jobs
- **Job Searching:** www.uwrf.edu/career/jobsearch_sites.htm
- **Internships:** www.uwrf.edu/internships
- **Career Services-University of North Carolina Wilmington:** www.uncwil.edu/stuaff/career/Majors/computer.htm
- **Computer Jobs and Technical Employment:** http://computerwork.com
- **Computer World Careers:** www.computerworld.com/cwi/careers
- **Developers.net:** www.developers.net
- **IEEE Computer Society:** http://computer.org
- **Tech-Centric.net:** www.tech-centric.net
- **Jobs for Programmers:** www.prpjobs.com
- **International Webmasters Association:** www.iwanet.org
- **Internet Society:** www.isoc.org
- **Institute for the Certification of Computer Professionals:** www.iccp.org