Computer Science Career Outlook 2009-2010

Computer Science Programs Available at Bemidji State University:
Major:  Computer Science (B.S.), Computer Information Systems (B.S.)
Fields of Emphasis:  Professional, Integrated
Minor:  Computer Science (B.S.)
Department Website:  
http://www.bemidjistate.edu/academics/departments/math_computer_science/computer_science/

Major Highlights:
Using the language of mathematics, computers have changed our ability to create. They lift design off the flat surface of the page and give it three-dimensional qualities formerly available only through model building. They allow us to throw away our erasers and concentrate on words and images. They permit us to communicate with each other with the speed and ease offered by electric circuitry. Because of their flexibility, computers are integral to most research and are indispensable in most professional careers. In education they are used for instruction, for learning, and for efficiency. In industry they are revolutionizing businesses, and in science they allow us to simulate a Jupiter fly-by, to design the next generation Airbus, and to investigate the effects of pollutants on the environment. Computer Science majors learn to look at complex situations, identify patterns, and develop processes that take advantage of those patterns in order to solve a problem or improve an approach to a problem. They transform their solutions into algorithms and implement programs for a broad range of software systems. Majors in Computer Information Systems, a program offered jointly with Business Administration, study software development for automating business processes.

Employment Areas:
The "Occupational Outlook Handbook" reports that computer scientists held about 28,900 jobs in 2008. Although they are increasingly employed in every sector of the economy, the greatest concentration of these workers, about 23 percent, was in the computer systems design and related services industry. Many computer scientists were also employed by software publishing firms, scientific research and development organizations, and in education.

Projected Demand for Computer Science Majors in Minnesota:
MnCareers reports that the outlook for computer scientists is excellent, both nationally and in Minnesota, with about 28,240 computer engineers and database administrators currently employed in the field in Minnesota. The average income for computer engineers is about $43.00 per hour and $38.90 for database administrators.

Projected Demand for Computer Science Majors Nationwide:
The DISCOVER guidance system reports that the nationwide demand for software engineers and computer network specialists are growing rapidly with a 3.9% expected growth rate. The growth rate for computer programmers is declining with a -0.4% expected growth rate. According to the National Association of Colleges and Employers, starting salary offers for graduates with a bachelor’s degree in computer science averaged $61,407 in July 2009.

Placement Information for Computer Science Graduates:
There are many opportunities for Bemidji State University computer science graduates. Of the Bemidji State University computer science 2008-2009 graduates, 80% reported obtaining related employment within one year of graduation. This does not include students who were not seeking employment, furthering their education, unavailable, or had unknown status. In 2005-2006 BSU graduates reported having earned a starting salary of $50,000.

A Partial List of Employers Who Have Hired BSU Computer Science Graduates:

<table>
<thead>
<tr>
<th>Employer</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accenture</td>
<td>Minneapolis, MN</td>
</tr>
<tr>
<td>All American Imprints</td>
<td>Wyoming, MN</td>
</tr>
<tr>
<td>AMS</td>
<td>Frankfort, KY</td>
</tr>
<tr>
<td>Aristocrat Technologies, Inc.</td>
<td>Bloomington, MN</td>
</tr>
<tr>
<td>Analyst Information Technology /Customer Service</td>
<td></td>
</tr>
<tr>
<td>Software Developer</td>
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</tr>
<tr>
<td>OASIS Regional Support Specialist</td>
<td></td>
</tr>
</tbody>
</table>
A Partial List of Employers Who Have Hired BSU Computer Science Graduates (continued):

Arthur Andersen
Bankers Systems
Bankers Systems, Inc.
BankFirst
Beltrami Electric
Bemidji High School
Bemalillo County
Black & Veatch Solutions Group, Inc.
Canto
Christianson & Associates
City
Colorado College
Compass Technology Management
Corporate Benefit Services of America
Cross Consulting
Cross Consulting USA
Cross USA
Crystal Tech Web Hosting, Inc.
Custom Connections Corporation
Cyclone Communications
Dairy Queen Operators Association
Decision Systems, Inc.
Deloitte & Touche
Digi-Key Corporation
Digi-Key Corporation
Digi-Key Corporation
Dorsey & Whitney, LLP
Eagle Creek
eBusiness Application Solutions
E-Business Applications
Edward D. Jones
Federated Insurance
Federated Insurance
Federated Insurance
Fitness Club
Flex Solutions, Inc.
Gander Mountain
Great River Energy
International Decision Systems
Jacobs Management Corporation
Justin Mattern
Knowledge Planet.Com
Level 3 Communications
LSS Data Systems
LSS Data Systems
LSS Data Systems
Lutheran Brotherhood
Lutheran Social Service
Manpower/St. Mary's Duluth Clinic
Marvin Windows and Doors
Mayo Foundation
Merrill Corporation
MN Department of Transportation
MunsenWare
Noridian-Blue Cross/Blue Shield
North Control University
Open-C Solutions
Open Systems International

Technology Risk Consultant
Software Engineer
Business Analyst
Production Analyst
Information Systems Technician
Network Administrator
Programmer/Analyst
Software Analyst II
Programmer
Application Specialist
Computer Department Sales
Records Specialist
Data Base Administrator
Programmer/Analyst
Programmer
Computer Programmer
Level 1 Programmer
IT Administrator
MRP Implementer/Assembly
Cable Technician/DB Administrator
Coordinator
Programmer/Analyst
Consultant
Microcomputer Specialist
Software Engineer
Web Programming
Technical Support Specialist
Programmer
Business Analyst
Quality Assurance
Branch Office Administrator
Associate Programmer
Programmer
Business Programmer/Analyst
Desk/Maintenance
Project Manager
Operations Specialist
Information Technology
Developer
Web Developer
ETP Marketing
Software Engineer
Usage Analyst
Programmer
Support Programmer
Computer Programmer
Information Systems
Director Support Staff
Security Coordinator
Computer Programmer
Computer Analyst/Programmer
Client Services
MIS Office - Webmaster/GIS Coordinator
Technical Support Representative
Programmer/Analyst
Network Server Engineer
Programmer
Software Engineer

Minneapolis, MN
St. Cloud, MN
St. Cloud, MN
Sioux Falls, SD
Bemidji, MN
Bemidji, MN
Albuquerque, NM
Overland Park, KS
Berlin, Germany Circuit
Willmar, MN
Minneapolis, MN
Colorado Springs, CO
Virginia Beach, VA
Minnetonka, MN
Sebeka, MN
Sebeka, MN
Sebeka, MN
Phoenix, AZ
Burnsville, MN
St. Louis Park, MN
Chaska, MN
Minneapolis, MN
Minneapolis, MN
Thief River Falls, MN
Thief River Falls, MN
Thief River Falls, MN
Minneapolis, MN
Valley City, ND
Manhattan, NY
Freemont, CA
Ely, MN
Owatonna, MN
Owatonna, MN
Maplewood, MN
Minneapolis, MN
Bemidji, MN
Elk River, MN
Minneapolis, MN
Minneapolis, MN
Willmar, MN
Edina, MN
Broomfield, CO
Eden Prairie, MN
Eden Prairie, MN
Eden Prairie, MN
Minneapolis, MN
Bemidji, MN
Duluth, MN
Warroad, MN
Rochester, MN
St. Cloud, MN
Bemidji, MN
Elk River, MN
Fargo, ND
Minneapolis, MN
Edina, MN
Plymouth, MN
A Partial List of Employers Who Have Hired BSU Computer Science Graduates (continued):

<table>
<thead>
<tr>
<th>Employer</th>
<th>Position</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optima Technology Partners</td>
<td>Business Development/Marketing Research</td>
<td>Mountain View, CA</td>
</tr>
<tr>
<td>Paul Bunyan Telephone</td>
<td>Tier 1 Data Service Representative</td>
<td>Bemidji, MN</td>
</tr>
<tr>
<td>Photo Control Corporation</td>
<td>Programmer</td>
<td>Minneapolis, MN</td>
</tr>
<tr>
<td>Primera</td>
<td>Technical Support Representative</td>
<td>Plymouth, MN</td>
</tr>
<tr>
<td>Primerica</td>
<td>Representative</td>
<td>St. Paul, MN</td>
</tr>
<tr>
<td>Princeton Financial Insights</td>
<td>CIO</td>
<td>Minneapolis, MN</td>
</tr>
<tr>
<td>Pro West &amp; Associates</td>
<td>Computer Programmer</td>
<td>Walker, MN</td>
</tr>
<tr>
<td>Pro West &amp; Associates</td>
<td>Software Developer</td>
<td>Walker, MN</td>
</tr>
<tr>
<td>Retek Information Systems</td>
<td>E-Business Consultant</td>
<td>Minneapolis, MN</td>
</tr>
<tr>
<td>Robert Half Associates</td>
<td>Consultant</td>
<td>Minneapolis, MN</td>
</tr>
<tr>
<td>Rural Computer Consultants</td>
<td>Programmer</td>
<td>Bird Island, MN</td>
</tr>
<tr>
<td>SDRC</td>
<td>Software Engineer</td>
<td>Arden Hills, MN</td>
</tr>
<tr>
<td>SEI Information Technology</td>
<td>MBS Technical Support Engineer</td>
<td>Fargo, ND</td>
</tr>
<tr>
<td>South Country Health Alliance</td>
<td>Enrollment Coordinator</td>
<td>Owatonna, MN</td>
</tr>
<tr>
<td>TEAM Industries</td>
<td>Database Design &amp; Computer/User Support</td>
<td>Bagley, MN</td>
</tr>
<tr>
<td>The Schwan Food Company</td>
<td>Systems Developer</td>
<td>Marshall, MN</td>
</tr>
<tr>
<td>Thomson West</td>
<td>Sr. Software Engineer</td>
<td>Eagan, MN</td>
</tr>
<tr>
<td>Unisys</td>
<td>Unspecified Job Title</td>
<td>Herndon, VA</td>
</tr>
<tr>
<td>Unisys</td>
<td>Windows System Analyst</td>
<td>Eagan, MN</td>
</tr>
<tr>
<td>United Health Care</td>
<td>Computer Billing Analyst</td>
<td>Duluth, MN</td>
</tr>
<tr>
<td>United Healthcare</td>
<td>Electronic Eligibility Analyst</td>
<td>Duluth, MN</td>
</tr>
<tr>
<td>Unspecified Employer</td>
<td>Information Systems Technician</td>
<td>Bemidji, MN</td>
</tr>
<tr>
<td>Upward Bound - Bemidji State University</td>
<td>Database Management</td>
<td>Bemidji, MN</td>
</tr>
<tr>
<td>US Bank</td>
<td>Database/Liquidity Specialist</td>
<td>Minneapolis, MN</td>
</tr>
<tr>
<td>US Bank</td>
<td>Computer Network Technician</td>
<td>Sauk Centre, MN</td>
</tr>
<tr>
<td>US Bank</td>
<td>Data Entry</td>
<td>St. Paul, MN</td>
</tr>
<tr>
<td>Vision Ease</td>
<td>Computer Analyst</td>
<td>St. Cloud, MN</td>
</tr>
<tr>
<td>Wikstrom Telephone Company</td>
<td>Systems Administrator</td>
<td>Karlstad, MN</td>
</tr>
<tr>
<td>World Data Products</td>
<td>Compaq Sales Representative</td>
<td>Minnetonka, MN</td>
</tr>
</tbody>
</table>

Note 1: Some of the above job/career titles require advanced degrees or specialized training.

Note 2: Degrees alone do not get students jobs. Internships, summer jobs, volunteer work, part-time jobs, work-study positions, and active participation in student organizations on campus are all ways to become more competitive in a tight job market.

Note 3: Personal Competencies: it is also recommended that individuals be competent in a variety of communication methods, and computer skills are a must.

Bibliography:

Bemidji State University Undergraduate Catalog 2006-2008. Bemidji State University, Bemidji, MN (2009)
DISCOVER. The American Testing Program, Educational Technology Center, Hunt Valley, MD (2009)

For more information, please contact the Career Services Office in 102 Sanford Hall or call us at 218-755-2038 or toll free at 800-657-3726.