



**BENTLEY
UNIVERSITY**

Careers in Computer Information Systems

“Information Systems plays a critical role in helping Boston Scientific fulfill its Mission...to Improve the Quality of Patient Care. Discovering talent is vital to the success of our Information Systems organization and Bentley provides its students the business and leadership skills we value here at Boston Scientific. In 2010, Boston Scientific Information Systems employed 4 Bentley recent graduates in our Rotational Program and 7 students in our internship program. We challenge each of these students every day to play major roles on our project and system support teams to help Boston Scientific achieve our Mission.”

***Eric Winrow, Manager;
Dave Rosenthal, Senior Manager;
Bentley Recruiting Co-Champions***

Miller Center for
Undergraduate Career Services
LaCava Building, 270
781-891-2375

Bentley's CIS major and minor are very marketable to numerous companies and command premium salaries. Technology related hiring is in demand. According to the May 2010 "at graduation" survey the average salary for Bentley's CIS majors was just over \$55,000 with many students receiving a signing bonus also! If you are not majoring in CIS and it is of interest to you, then consider the minor.



Selected positions accepted by Bentley's May 2010 and 2009 CIS graduates (CIS majors and minors):

- ***Boston Scientific: Business Process Analyst; Application Analyst, International Applications; Business Analyst in the Rotational Program; and Business Analyst in the International SAP Support team***
- ***Liberty Mutual: Information Systems Analysts in Technology Group and Technical Development Program***
- ***Fidelity Investments: LEAP Technology Program Information Systems Analyst and LEAP Associate Software Engineer***
- ***Deloitte Consulting: Business Technology Analyst***
- ***Ernst & Young: NESAs Advisory***
- ***KPMG: IT Attestation Advisory***
- ***Epsilon: Analyst***
- ***Becton-Dickinson: Information Technology Leadership Development Program***
- ***Protiviti: Technology Consultants***
- ***Endeca Technologies: Systems Administrator***
- ***Verizon Wireless: Programmer Analyst (Junior Member of Applications Staff)***
- ***PricewaterhouseCoopers: Systems and Process Assurance Associate; and Associate in Advisory Technology group***
- ***Fox News Channel in NYC: Working in advertising, marketing and promotion***
- ***Commonwealth Financial: IT Support***
- ***Wolf and Company: IT Auditor***
- ***Department of Defense: IT Specialist***
- ***BackOffice Associates: Data Migration Consultant***
- ***Thermo Fisher: IT Leadership Program***
- ***Edgewater Technology: Associate Consultant***
- ***Public Consulting Group: IT Support Specialist***
- ***Peloton Group: Technical Analyst/Consultant***

What did CIS May 2010 and 2009 graduates have to say about the CIS degree?

- ***“The CIS degree did a great job in giving a varied overview of many of the jobs available in IT. Students who are looking to join an IT Leadership Program or other business process team would benefit greatly from this program. I and my friends in the major did not have any problems obtaining employment over the past two years and I think that is a testament to Bentley and CIS”.***
- ***“For the CIS degree, the classes given were very helpful in obtaining this job. I found myself very familiar with the job requirements. Classes such as CS 350 and 360 provided me with a sense of expertise with developing databases. Classes such as CS 180 and 280 provided me with background about Java. My favorite course was by far CS240. Though it was really tough, the content was great and provided me with a better understanding of computer architecture, which I used during my interviews. I think I really benefited from the CIS curriculum since I will be using a lot of the concepts I learned for my job. Overall, this CIS degree has provided me with a new perspective of the world, looking at it from an IT oriented standpoint”.***
- ***“The CIS degree from Bentley is so valuable because you have the ability to gain understanding of many different facets of the industry, while also having the ability to dive into more specific areas of interest. Everything from the most basic classes taken as a freshman all the way to the 400 level classes and beyond contribute to your overall learning and understanding for the life and career beyond Bentley. CS 350 and 360 are two classes from which I can draw information relevant to the work I will be doing in my full-time position. In these tough economic times, one thing that you will see is that there will rarely be a shortage in the need for IT services. As companies grow they will be looking for newer and more efficient ways to run their business and on the other end of that situation will be capable CIS graduates.”***
- ***“Overall, I am very happy with my experience at Bentley and my CIS degree. It seems as though the courses are very well aligned with what I will be doing. One in particular, however, CS 460, was the PERFECT course to prepare me for what I will be doing. My professor really knew how IT works in the business world, especially in terms of software projects and managing them. I would certainly recommend the course to any CIS major that hopes to work as an analyst or developer for a big business. Also, CS 420 (Linux) was very helpful because a majority of the development work done in my department uses Unix-based systems, and involves heavy usage of the terminal. My company (and I'm sure most other companies seeking IT analysts) expect at least some knowledge of basic programming languages such as Java, SQL, XHTML, and CSS. “I would say that CIS majors probably have the greatest range of options. I found that most students interviewing for jobs had more freedom to choose a company they wanted, rather than being chosen by the company”***
- ***“Courses that really added to my knowledge were the programming classes like CS180, CS280, and CS380 that gave me the programming skills to build websites; this helped me build the intern site at my summer internship. CS420 gave me the Linux skills to operate online servers and an enhanced knowledge of how computers really work. CS350 taught me database skills to help me understand how the vast media is stored in databases, especially online”.***
- ***“I really enjoyed the CIS program, it was both challenging and gratifying. The course that I would highly recommend to all CIS majors is CS460. (Software Project Management). This course really added to my job search and gave me some real life experience within software development.”***

Positions and internships for CIS students to consider

Application Analyst

Supports a given application or applications. This may include programming, some system administration skills, and the ability to analyze a given problem, diagnose it and find its root cause, and then either solve it or pass the problem on to the relevant departments.

Business Systems Analyst

Analyze business application requirements for functional areas such as finance, manufacturing, marketing or human resources. Analysts write code, test and debug software applications; recommend system changes and enhancements; document software specifications and train users.

Business Technology Analyst

Assist in determining how the IT function can more effectively support the overall corporate strategy. May contribute to a team helping to transform technology architecture for enterprise systems. Play a role in helping to design, develop, and implement a new system or address complex business problems through the effective application of technology. Interact with diverse members of the organization.

Data Analyst/Report Writer

Analyze complex data systems and document data elements, data flow, relationships and dependencies; develop automated and reusable routines for extracting requested information from database systems, compile detailed reports using data reporting tools, and make recommendations based on findings; work in partnership with business analysts, data architects and database developers to build data transactional and warehousing systems.

Data Architect

Understand and evaluate business requirements and translate those into specific database solutions; create data design models, database architecture and data repository design; work with the systems and database administration staff to implement, coordinate and maintain enterprise wide data architecture; provide leadership in establishing and documenting data standards; create and test database prototypes.

*"I am so happy to be where I am and that I secured such a great job right out of college. I definitely owe it all to my choice to major in CIS!"
(Bentley CIS May 2010 graduate)*



Data Modeler

Analyze organizational data requirements and create logical and physical models of data flow; interview key project stakeholders, document findings and make detailed recommendations; work with database administrators and reporting teams to ensure the availability of standard and ad hoc data reporting in a production environment; address data-quality issues with clients and management.

Data Security Analyst/Risk Analyst

Perform security audits, risk assessment and analysis; make recommendations for enhancing data systems security; research attempted breaches of data security and rectify security weaknesses; formulate security policies and procedures.

Desktop Support Analyst

Maintain an inventory of installed software, manage software licensing, and create policies and procedures for upgrades; work with hardware and software vendors to verify timely product delivery and ensure that new equipment is installed and set up on schedule; analyze and make recommendations for hardware and software standardization; create user accounts and manage access control based on company policies.

E-Commerce Analyst

Analyze business and user requirements and make recommendations regarding the design and development of web-based e-commerce solutions; coordinate work with web designers and other technical specialists for the implementation of e-commerce websites; test and evaluate e-commerce site performance and monitor site analytics.

Electronic Data Interchange (EDI) Specialist

Implement and monitor EDI systems, including data mapping, translation and interface; coordinate relations and serve as liaison to internal users, vendors and other external partners with respect to data interchange standards; perform system testing and quality control checks; develop and maintain EDI documentation.

Help Desk

Take initial telephone or e-mail inquiries and troubleshoot and manage relatively simple hardware, software or network problems to more complex issues requiring detailed systems and applications knowledge.

IT Auditor

Test and evaluate IT systems and controls for conformity with industry standards of efficiency, accuracy and security; provide independent verification in connection with the Statement on Auditing Standards (SAS) No. 70 reporting requirements, Sarbanes-Oxley Act compliance and similar regulations; make recommendations for systems operations and process improvements and present them to senior management; develop risk-based audit plans.

Mainframe Systems Programmer

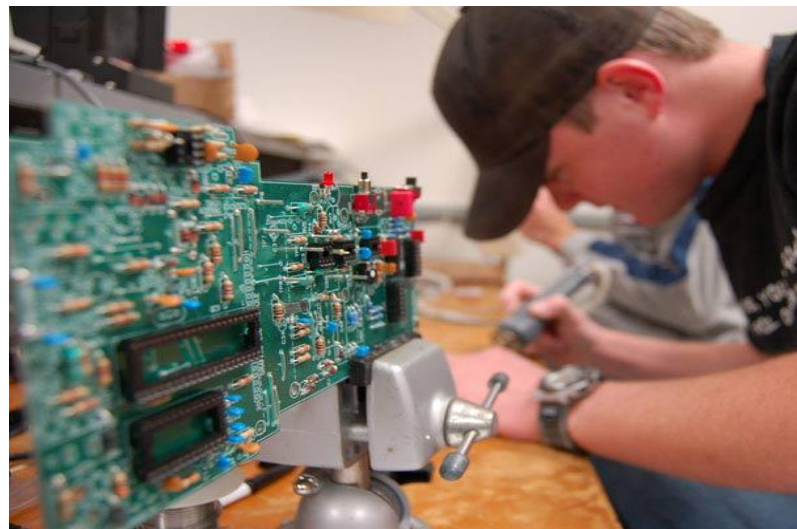
Design logic, write code, test and debug mainframe computer applications; install and implement programs and upgrades; diagnose and resolve problems in coordination with other technical team members; document

procedures for mainframe configuration and operation.



Network Security Administrator

Implement network security policies and procedures; administer and maintain firewalls; manage, monitor and update virus prevention systems; monitor security advisory groups to ensure all necessary network security updates; patches and preventative measures are in place; perform intrusion detection analysis.





Quality Assurance Analyst/Tester

Develop and execute software test plans; identify and facilitate issue resolution with functional and technical groups; manage software beta test programs; document test results.

Software Developer

Code, test and debug programs according to computer engineering specifications; modify, expand and update applications; communicate with a team that includes analysts, engineers and quality assurance testers in order to coordinate and document application development and testing; develop software prototypes.

Software Engineer

Design and create engineering specifications for software programs and applications; work with quality assurance to develop software test plans; collaborate with hardware engineers to assess and test hardware and software interaction; implement a specific development methodology; document software specifications.

Systems Administrator

Install operating system software, patches and upgrades; analyze, troubleshoot, and resolve system hardware, software and networking issues; configure, optimize, fine-tune, and monitor operating system software and servers; perform system backups and recovery; conduct server builds.

Systems Analyst

The systems analyst is the middleman, assessing the needs of the end-user and translating them into programming or working with other departments to develop the programming. What are the business requirements? Who will comprise the user community? How large is the application going to be? Will it be internal or external? These are all questions facing the systems analyst.

Systems and Process Assurance Associate

Provide relevant knowledge in the area of information technology controls – those controls that form the foundation of any complex IT environment. Review information technology operating procedures and systems of internal controls to understand and evaluate the controls over business processes. System

knowledge is necessary to provide recommendations for enhanced business efficiency.

Systems Security Administrator

Create, modify and delete user accounts; monitor systems security and respond to security incidents; participate in security systems testing; ensure integrity and confidentiality of sensitive data.

Technical Writer

Document the specifications, design, features and operation of applications; write and edit user manuals, help systems and other technical documents; design and format document using document-creation software; interview applications developers and other technical resource personnel to ensure the accuracy of all information presented.

Web Administrator

Install, customize, update and maintain corporate internal and external web pages and sites; create and analyze reports on web activity, number of hits, traffic patterns and similar performance metrics; monitor customer feedback and respond to inquiries; recommend network, server, and related equipment and software upgrades and improvements.

Web Designer

Work with design teams, marketing and developers to create a consistent and compelling visual style for a company's website; design and format web pages; test and troubleshoot web page features; create artwork to appear on web pages.

Web Developer

Web developers engineer Internet-specific software to post and update information on websites. Instead of working in a programming language, developers use markup languages such as HTML and JavaScript to create pages of text, images, and hyperlinks for site visitors to use.

** The information above was taken from a number of sources including: Wetfeet.com, CIS alumni, Wikipedia and Princeton Review.com. Reviewing these websites, BentleyLink job postings, and Bentley's career services website can help you gain knowledge of the career that is right for you!*

What is the best way to obtain a position in the industry?

Get some experience. This is the most effective means for obtaining a full-time job. Job shadowing, summer internships (whether paid or unpaid), externships, part-time work during the school year, and even volunteering your services are all excellent ways to gain resume enhancing experience.

Who do you know? Networking is a vital skill when it comes to the job search. Consider your friends, classmates, upperclassmen, family, friends of the family, faculty, administration...the list goes on and on! The Undergraduate Center for Career Services hosts a large number of networking opportunities such as career spotlights, career fairs, information sessions, panel events and alumni events throughout the year—you should be at them! Be sure to attend the “CIS Presents or Meet the Major” events hosted by the CIS faculty.

Get involved. In addition to students who are academically strong and have solid work experience, employers seek students who participate in on-campus activities or community service. Join a club, work part-time in Web Services, or be a CIS tutor. Do something to demonstrate that you are an effective leader and team player.

Get on BentleyLink! This on-line tool will help you manage your career development process. To log in, go to: Bentley.edu/bentleylink-career

Please enter your username and password which was e-mailed to you at the beginning of your freshman year. If you do not know your Username and Password, click on “Forgot Password” and you will be prompted to enter your Bentley e-mail address and a new password will be mailed to you. Once you have successfully logged in you will be on the Career Services BentleyLink home page. You can create and upload your **resume and cover letter, view job openings, view career services events and programs and manage your interviews.** Visit Career Services Office in LaCava 270!

Join Bentley’s LinkedIn Group. The Bentley University Alumni LinkedIn group enables you to access the professional knowledge and experience of your fellow alumni.

With LinkedIn, you will be able to:

- Build professional relationships with fellow alumni that can help you —get your foot in the door at top-tier organizations in your specific field of interest
- Get the real scoop on what internships and full-time jobs are like at organizations across the country and throughout the world
- Be better prepared for interviews by learning the types of questions companies ask in a first, second or final round of interviews

To join, go to www.linkedin.com and search for —Bentley University Alumni group. It takes just minutes to get connected to the latest career network building site. Be a part of the LinkedIn community and realize the power of networking!



Stay up-to-date. Computer technology is constantly changing. You must keep up-to-date with all the recent developments by reading periodicals, trade journals, attending trade shows and anything else you can do to stay abreast of your field of interest.

Create a portfolio. You may need something to showcase your talents and serve as a reminder to both you and the prospective employers of that which you are capable. Have you redesigned a website or programmed software? A portfolio is an effective tool for cataloguing your achievements.

Be persistent. Many companies are increasing hiring for technology related positions. So research the companies you are interested in and make a connection! Stick with it—the positions are out there—you just need to find the right one for you!

Open your mind. Don't immediately close the door to any opportunity. Think you would never want to work in Quality Assurance? Speak to Bentley alumni working in these functional areas. Make sure you understand every role before you cross it off your list of potential careers.





Questions will vary depending upon the specific position you are pursuing but, generally speaking, you can expect the interviewer to focus on any or all of these core competencies: Analytical Capabilities, Logic, Detail Oriented, Patience, Multi-Tasking, Team Player, Oral and Written Communication Skills, Customer Service.

Most IT roles a Bentley CIS graduate accepts will require strong analytical abilities to solve problems, creativity to meet business challenges, good communication skills, the ability to be a solid team player, and leadership and motivation to take initiative to complete projects. A basic knowledge of software, programming, databases, systems or networking depending on desired role will be necessary. Many of these roles will require flexibility in a successful candidate due to the dynamic nature of the technology department and its contribution to the overall corporate strategy.

Sample Interview Questions

1. Why are you interested in x? Why this company?
2. Tell me about yourself.
3. Give me an example of a time that you were forced to work under very strict deadlines.
4. Give me an example of a time in which you were successful juggling many tasks at the same time. How did you prioritize your work and what was the final outcome?
5. Tell me about a time when you had to develop client relationships.
6. How do you work out group consensus?
7. What is your favorite class at Bentley and why?
8. What did you do or learn at your internship?
9. Describe a time at work when you had a significant impact on a situation.
10. How have you handled assignments in the past when you have been given little to no information or guidance?
11. Why should I hire you over the many other candidates we are currently considering?
12. What is your most creative project?
13. Give me an example of a time when you had to work with a particularly difficult or irate customer.
14. How do you document information?
15. What do you know about databases? SQL? Programming? Networks?
16. Give me an example of a time when you took a risk and failed.
17. Give me an example of a time when you used sound analytical reasoning to resolve a problem.





**Selected companies recruiting CIS majors
and minors in recent years include:**

**ADVANCED VISUAL SYSTEMS
AETNA, INC.
ALLMERICA FINANCIAL
ANALOG DEVICES, INC.
AOL TIME WARNER BOOK GROUP
ATHENAHEALTH INC.
BACKOFFICE ASSOCIATES
BECTON-DICKINSON
BOSE CORPORATION
BOSTON ARCHITECTURAL CENTER
BOSTON CANNONS
BOSTON SCIENTIFIC
BROWN BROTHERS HARRIMAN &
CO.
CATURANO&COMPANY/MCGLADREY
COMMONWEALTH FINANCIAL
COMPUTER SCIENCE CORPORATION
CORETELLIGENT
DELOITTE & TOUCHE LLP
DELOITTE CONSULTING
DEPARTMENT OF DEFENSE
EDGEWATER TECHNOLOGY
EMC CORPORATION
ENDECA TECHNOLOGIES
ENTERCOM BOSTON
EPSILON DATA MANAGEMENT
ERNST & YOUNG LLP
EVERYNETWORK
EZE CASTLE SOFTWARE
FIDELITY INVESTMENTS
FIRST MARBLEHEAD
FOX NEWS CHANNEL
GARTNER GROUP
GENERAL ELECTRIC**

**GENZYME CORPORATION
GORTON'S
GRANT THORNTON
HARTE HANKS DATA TECHNOLOGY
IBM CORPORATION
INTERNODED, INCORPORATED
INTUIT
JOHN HANCOCK FINANCIAL
SERVICES
JOHNSON & JOHNSON
JP MORGAN CHASE & CO.
KPMG, LLP
LIBERTY MUTUAL
LTX CORPORATION
MEDITECH
MONSTER
MORGAN STANLEY
OSRAM SYLVANIA, INC.
PRICEWATERHOUSECOOPERS
PROTIVITI
PUTNAM INVESTMENTS
RAYTHEON COMPANY
SAPIENT
SPANTECH SOFTWARE, INC.
STAPLES, INC.
SUNGARD HIGHER EDUCATION
TERADYNE
THERMO FISHER SCIENTIFIC
THE TRAVELERS COMPANIES, INC.
TRINITY PARTNERS, INC.
UNITED TECHNOLOGIES CORP
VERIZON
WELLINGTON MANAGEMENT
WOLF AND COMPANY**