A degree from the School of Informatics and Computing will prepare you for a technology-related career in a variety of industries and sectors. This list provides an overview of some career options in technology—the industry is growing and innovating rapidly and opportunities that are unheard of today may be top options in a few years.

Although both informatics and computer science majors may pursue any of these careers, some options attract more computer science students while others attract more informatics students. Many of the careers attract both majors.

Each career option also lists examples of companies and organizations that hire similar positions. The list of employers is not comprehensive but is designed to demonstrate the variety of employers and industries that hire for technology-related positions.

**Application Developer**

Application developers create custom software solutions to meet clients’ needs. Application developers must be able to understand business problems and concerns in a way that allows them to build and test solutions. Application developers often build applications from scratch or must combine customized specifications with existing off-the-shelf software. Some specific positions within the application development field include project managers, analysts, designers, programmers, and quality assurance specialists.

**CIGNA, CSC, HUMANA, IMAGE MATTERS, NORTHWESTERN MUTUAL, OFS BRANDS**

**Business Analyst**

Business analysts serve as the connection between business units, technology teams, and support teams of a company, facilitating the business' reliance on technology. This person must understand both the technology and business sides of an organization, and be able to identify and analyze business intelligence, data, and trends in order to make recommendations. Business analysts need to have a thorough understanding of how to interpret customers' business needs and translate them into application and operational requirements.

**CROWE HORWATH LLP, DELOITTE CONSULTING, EY, GENERAL MOTORS, HURON CONSULTING GROUP, MEDPRO GROUP, TATA CONSULTANCY SERVICES**

**Database Administrator**

Database administrators (DBAs) maintain the security and accessibility of company databases to ensure that information is secure from unauthorized access. DBAs also write and test modifications to the database structure—installing upgrades, writing and debugging programs, or restoring data. DBAs can provide expertise and guidance in the design, implementation, and maintenance of database management systems.

**BLOOM INSURANCE AGENCY, INDIANA OFFICE OF TECHNOLOGY**

**Information Security Analyst / Consultant**

Information security analysts plan and implement security measures to protect organizations’ networks and databases from security breaches. Information security analysts also implement preventative measures, such as backing up and restoring data, developing security practices, and utilizing encryption and firewall programs.

**ANTHEM, CIGITAL, CROWE HORWATH LLP, GENERAL MOTORS, PWC**

**Network Engineer**

Network administrators are in charge of planning and implementing networks. Network engineers may be responsible for customizing a network to an individual company’s needs, installing and connecting workstations, hardware, and software. Network engineers may also provide daily support and maintenance of the network, such as monitoring, troubleshooting, and maintaining the network in collaboration with network administrators.

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Programmer

Programmers write code, often in collaboration with software developers, to create the programs that developers have designed. In addition to writing code, programmers must be able to debug programs, update existing programs, and utilize a variety of programming languages. In web programming, programmers create applications that allow end-users to complete tasks on the web—such as buying products or placing orders with a retailer.

Quality Assurance Analyst/Engineer

Quality assurance analysts/engineers are responsible for identifying, analyzing, and documenting problems with software, programs, and other technology. QA analysts/engineers may develop and write testing programs to find bugs, or participate in product design or review to provide input on function, compatibility, design, or possible problems.

Software Developer/Engineer

Software developers produce computer-based goods and services for individual consumers and companies. They are in charge of designing programs, instructing programmers who write the programs, and providing upgrades and maintenance to the software. They coordinate production of software products, from choosing the content providers, assembling graphics creators, and working with programmers, through the actual assembling, producing, and distributing of the final product.

Support (Application, Database, Desktop, Software, Technical)

Support professionals are responsible for providing help desk or desktop support to company employees. Help desk support is centered on helping individuals troubleshoot problems and providing front-line customer service. Desktop support specialists often work on hardware and software issues within a company, determining integration and installation of equipment, selecting vendors, and providing support services.

Systems Engineer

Systems engineers design and coordinate large, complex projects typically involving IT infrastructure, hardware, and system software, in order to ensure that they all work together properly. Systems engineers may collaborate with other engineers or software developers to select appropriate design solutions for a system, and they may be responsible for design specifications, installation, security, upgrades, and troubleshooting of systems.

Technology Consultant/Analyst

A technology consultant works in partnership with clients, advising them on how to use information technology to best meet their business objectives or overcome problems. Consultants work to improve the quality and efficiency of an organization’s technology systems. Technology consultants may be involved in a variety of activities, including marketing, project management, client relationship management, and systems development.

User Experience (UX) Designer

User experience designers are responsible for understanding, evaluating, and improving how users interact with a particular system, such as a website or application. UX designers ensure that the site or application makes sense to the target audience, and UX designers may also be involved in decisions involving marketing, finance, customer support, interface design, and any other areas that may impact the user’s experience with the product.

User Interface (UI) Designer

User interface designers are responsible for creating user interfaces for applications, for conducting usability tests to ensure interfaces are problem-free and user-friendly, and for contributing to the overall user experience. User interface designers focus on creating what the user interacts with. This person works with the programming and client service teams for the maintenance and enhancements of client sites, applications, feeds, and banners. They will also create graphic and user interface solutions for various portals and applications, as well as web designs.

Web Developer

Web developers are programmers who create and design websites to meet the needs and expectations of clients and the website’s audience. Web developers often create sites from scratch, and they are often responsible for technical aspects of the site, such as performance and traffic capacity, as well as design, graphics, and layout. Some of the programming languages that web developers currently use are Java, C++, C#, Perl, PHP, HTML, CSS, JavaScript, and MySQL.