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

Each career option 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 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, HUMANA, IMAGE MATTERS, NORTHWESTERN MUTUAL, DFS BRANDS

**Big Data Engineer**
Big data engineers extract knowledge from increasing oceans of data, finding patterns in text and images. Big data engineers understand the specialized systems necessary for managing and processing big data, as well as specialized algorithms and techniques such as "deep learning." They also develop, maintain, and evaluate the big data collected and need a creative eye for finding trends.

EMC, IBM, MICROSOFT, ORACLE, SAP

**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 to make recommendations. Business analysts need a thorough understanding of how to interpret customers’ business needs and translate them into application and operational requirements.

CROWE HORWATH, DELLOITE, EY, GENERAL MOTORS, HURON CONSULTING GROUP, MEDPRO, TATA CONSULTANCY SERVICES

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

BLOOM INSURANCE AGENCY, INDIANA OFFICE OF TECHNOLOGY

**Industrial Automation Engineer**
Automation is increasingly used in manufacturing to increase productivity and quality. Guided by industrial automation engineers, robotics and computer-controlled systems are changing the way products are made. Industrial automation engineers focus on finding ways to make the process of automation more efficient through the design and development of software that can best take advantage of the latest technology.

CUMMINGS, GENERAL ELECTRIC

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

ANTHEM, CROWE HORWATH, GENERAL MOTORS, PWC, SYNOPSYS
Web developers are programmers who design and create websites to meet the needs and expectations of clients and the website's audience. They are in charge of designing programs, instructing programmers who write the programs, and providing upgrades to websites. They are responsible for ensuring that all their 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.

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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. They may be involved in web and mobile design, user interface, user research, and information architecture.

Software Developer/Engineer

Software developers produce computer-based goods and services for consumers and companies. They are in charge of designing programs, instructing programmers who write the programs, and providing upgrades to websites. They are responsible for ensuring that all their 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.

Systems Engineer

Systems engineers design and coordinate large, complex projects typically involving IT infrastructure, hardware, and systems. They are responsible for ensuring that all their 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.

Systems Analyst

Systems analysts study the needs and limitations of a company’s computer systems, and provide recommendations for upgrades, configurations, and installations that will help the company operate more efficiently. They are in charge of designing programs, instructing programmers who write the programs, and providing upgrades to websites. They are responsible for ensuring that all their 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 structure 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.

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