

Information Technology

Information technology (IT) is the application of computers and telecommunications equipment to store, retrieve, transmit and manipulate data, often in the context of a business or other enterprise. The term is commonly used as a synonym for computers and computer networks, but it also encompasses other information distribution technologies such as television and telephones. Several industries are associated with information technology, including computer hardware, software, electronics, semiconductors, internet, telecom equipment, e-commerce and computer services. — WIKIPEDIA

Massachusetts Job Growth Forecast of Typical Jobs Found in Information Technology

JOB TITLE	EMPLOYMENT 2012	EMPLOYMENT 2022	AVERAGE ANNUAL JOB OPENINGS	AVERAGE ANNUAL WAGE
Computer Programmers	8,511	9,095	280	\$82,750
Computer Systems Analysts	16,820	20,837	666	\$87,030
Database Administrators	4,498	5,413	177	\$82,560
Information Security Analysts	2,635	3,664	144	\$93,070
Network and Computer Systems Administrators	10,019	11,279	283	\$80,770
Software Developers, Applications	27,353	32,937	909	\$103,250
Software Developers, Systems Software	30,032	36,293	1,011	\$113,250

Source: Massachusetts Executive Office of Labor and Workforce Development

Necessary Skills

Workers in IT need skills such as math, computer technology, analytical skills, and writing.

Participating North Shore IT Companies

- EBSCO Information Services – Ipswich, MA

Company Profile: EBSCO

EBSCO is a 30 year old international company with 3,000 employees, including 1,100 in Topsfield and Ipswich. The company provides a complete and optimized research solution comprised of research databases, e-books and e-journals—all combined with

the most powerful discovery service and management resources to support the information and collection development needs of libraries and other institutions and to maximize the search experience for researchers and other end users.

EBSCO serves the content needs of all researchers whether they access EBSCO resources via academic institutions, schools, public libraries, hospitals and medical institutions, corporations, associations, or government institutions.

EBSCO hires about 140 technical jobs each year and 15-20 co-op students for 6-9 month periods of time. They look for individuals who are pro-active and entrepreneurial—who have developed websites for

themselves of friends and can demonstrate an interest in learning engineering or IT on their own. Software programs include HTML, Javascript, php, linux, or apache.

They have three large 24/7 data centers with 2,000 servers requiring a large staff of IT technicians to maintain the system and assure they are secure and never go down. All information is stored in the Cloud, which users access through their portals.

EBSCO, like many IT companies, faces a dearth of US citizens with the skills needed for hiring. Even IT graduates from local colleges almost all are foreign nationals, requiring the purchase of H1B visa in order to hire. This is a costly reality for this industry that they would like to reverse. High Schools can help by offering computer science courses, A+ or networking certifications. Parents can also help by introducing their children to IT skills through on-line resources.

Critical Technical and Core Competencies

Identified by EBSCO Employers

Jobs in IT require High School students to complete courses in Algebra, Computer Science, Calculus, and other advanced Science courses. All jobs listed require a proficiency in English for report and email writing, documentation and specification writing. All of these jobs also require math at varying levels of intensity, depending on the position. Other skills needed include presentation, collaboration, problem-solving, initiative, follow-through and decisions making skills. All jobs at EBSCO require at least an Associate's Degree and most will require a Bachelor's or prefer a Master's Degree. Ninety percent of engineer hires have BA degrees and one-third of these have Master's Degrees.

Other North Shore IT Companies

- Digital Bungalow – Salem, MA
- Amtex Systems – Beverly, MA



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