Computer and information science (CIS) has two faces: technological (practical) and philosophical (intellectual). The practical focus is on solving problems with the aid of computers in order to “turn dreams into reality” in support of improved human health, happiness, safety, and productivity. The intellectual focus is on the study of a variety of systems and languages and their use in the design and construction of precise and understandable artifacts of all kinds. Fundamentals studied in the CIS curriculum include algorithms and data structures, programming languages, computer architecture, computer graphics, operating systems, software engineering, systems analysis, database and information retrieval systems, artificial intelligence and robotics, and human-computer interfaces.

Career Areas/Job Titles:

Management and Industry
- Project Manager
- Consultant
- Entrepreneur
- Lawyer

Communication, Media, and Entertainment
- Technical Writer
- Computer Animator

Science and Technology
- Game Developer
- Systems Operator
- Systems Developer
- Systems Analyst
- Software Developer
- Database Developer
- Network Administrator
- Data Analyst

Education
- Web Developer
- Programmer
- Technical Support Specialist
- K-12 Teacher
- Professor
- Librarian

Transferable Skills:
- Artistic Design
- Computer Programming
- Computer Troubleshooting
- Mathematic Skills
- Technical Writing
- Teamwork
- Conceptualization
- Creativity/Imagination
- Defining Needs
- Adaptability/Flexibility
- Attention to Detail
- Administrative Skills
- Organization Skills
- Prioritizing Tasks

*Some careers may require licensure, certification, or further education. Talk to an advisor about specific requirements.

*This is not an extensive list of transferable skills. See larger list of skills you might develop here: [http://ccss.osu.edu](http://ccss.osu.edu)

Professional Links:

Association for Computing Machinery: [http://www.acm.org/](http://www.acm.org/)
Institute of Electrical and Electronics Engineers: [http://www.ieee.org/index.html](http://www.ieee.org/index.html)
Ohio State Institute for Electrical and Electronic Engineers: [http://sites.ieee.org/sb-osu/](http://sites.ieee.org/sb-osu/)