

**WHAT CAN I DO WITH A MAJOR IN:  
COMPUTER ENGINEERING**

**Career Center for Science and Engineering  
University of Minnesota  
50 Lind Hall/ 207 Church Street SE  
Minneapolis, MN 55455  
612-624-4090**

**What Activities Could Computer Engineering Majors Do?**

Computer hardware engineers research, design, develop, and test computer hardware and supervise its manufacture and installation. Hardware refers to computer chips, circuit boards, computer systems, and related equipment such as keyboards, modems, and printers. The work of computer hardware engineers is very similar to that of electronics engineers, but unlike electronics engineers, computer hardware engineers work with computers and computer-related equipment exclusively.

Computer software engineers apply the principles and techniques of computer science, engineering, and mathematical analysis to the design, development, testing, and evaluation of the software and systems that enable computers to perform their many applications. Software engineers working in applications or systems development analyze users' needs and design, construct, test, and maintain computer applications software or systems. Software engineers can be involved in the design and development of many types of software, including software for operating systems and network distribution, and compilers, which convert programs for execution on a computer. In programming, or coding, software engineers instruct a computer, line by line, how to perform a function. They also solve technical problems that arise. Software engineers must possess strong programming skills, but are more concerned with developing algorithms and analyzing and solving programming problems than with actually writing code.

**What Industries Could Computer Engineering Majors Explore?**

Communication Technology	Electronic Components	Government Safety Agencies	Hardware Design
Human Genetics Engineering	Information Technology	Medical Technologies	Open Systems Control
Semiconductors	Software Developers	Software Systems	Telecommunications
Computer Aided Engineering	Manufacturing Automation	High Speed Supercomputers	Hardware Manufacturer

**What Employers Hire Computer Engineering Majors?**

Alliant Tech Systems	Banner Engineering	Cannon Technologies	Compaq Computer
Deluxe Corporation	Emerging Soft Corp	Ford Motor Co.	Honeywell
IBM Corporation	Logic Plus Inc.	Microsoft Corporation	NASA
Sig-tec	Symantec Corporation	United Defense	ZS Associates
Unisys	ADC	ESI	Micron
National Instruments	Oracle	Seagate Technology	Tellabs

**What Are Some Full-Time Job Titles For Computer Engineering Majors?**

Applications Analyst	Circuit Design Engineer	Communications Engineer	Control System Designer
Integration Test Specialist	Network Support Analyst	Software Developer	Software Test Engineer
Computer Systems Analyst	Component Design Engineer	Reliability Engineer	Automation Engineer
Computer Engineer	Hardware Development Engineer	Research Engineer	Project Engineer

**What Are Some Websites For Computer Engineering Majors?**

Dice	<a href="http://www.dice.com">www.dice.com</a>
Engineer Jobs	<a href="http://www.engineerjobs.com">www.engineerjobs.com</a>
Engineering Central	<a href="http://www.engcen.com">www.engcen.com</a>
IEEE Computer Society	<a href="http://www.computer.org">www.computer.org</a>
Graduating Engineer and Computer Careers	<a href="http://www.graduatingengineer.com">www.graduatingengineer.com</a>

Information on this page was compiled from the Occupational Outlook Handbook, the Encyclopedia of Careers and Vocational Guidance, University of Minnesota departmental websites, and student-reported data.