



What You Can Do With a Major in Computer Engineering

Description:

The rapid development of computers has generated a need for highly trained workers to design and develop new hardware and software systems and to incorporate technological advances into new or existing systems. The professional specialty group is commonly referred to as computer scientists, computer engineers and system analysts. Computer scientists design computers and the software that runs them. Computer engineers also work with the hardware and software aspects of systems design and development. Systems analysts use their knowledge and skills to solve computer problems and enable computer technology to meet the individual needs of an organization. The University of Alabama offers a Bachelor of Science, Master of Science and a doctorate in Computer Engineering. Please see the undergraduate and graduate catalogs for more information on these programs. Professional work experience, either through cooperative education or internship, is strongly recommended.

Skills:

Critical thinking	Judgment and decision making
Decision making	Mathematical reasoning
Deductive reasoning	Organizing material
Fluency of ideas	Originality
Inductive reasoning	Systems perception
Information gathering	Troubleshooting

Typical Work Activities:

- Conduct research and analyses
- Coordinate research activities
- Design new computing devices or computer-related equipment
- Determine goals and objective of a certain job
- Develop systems software
- Forecast equipment and personnel needs
- Install new computer equipment and software
- Make purchasing decisions
- Review and test computer equipment and software
- Supervise engineering and computer personnel

Employment Settings:

Business Corporations	Government Agencies
Colleges and Universities	Insurance Firms
Defense Department	Machinery Manufacturing
Engineering and Architectural Services	Manufacturers of Computer Equipment
Financial Institutions	Research and Development Firms

Internet Sites:

Association for Computing Machinery (ACM) www.acm.org
Career Information www.collegegrad.com/careers
Institute of Electrical and Electronics Engineers www.ieee.org
Quality Assurance Institute www.qai.org

Career Center Resources:

Careers for Computer Buffs & other Technological Types, by Marjorie Eberts, 1993
Computing and Software Design Career Directory, by Bradley J. Morgan, 1993
Great Jobs for Computer Science Majors, by Jan Goldberg, 1998
Great Jobs for Engineering Majors, by Geraldine O. Garner, 1996
Opportunities in Computer Systems Careers by Julie Kling Burns, 1996
Opportunities in CAD/CAM Careers by Jan Bone, 1993

Professional Associations:

Association for Computer Professionals www.acpenw.org/
Association of Information Technology Professionals www.aitp.org
Institute for Certification of Computing Professionals www.iccp.org
Society of Women Engineering www.swe.org

For additional professional organization listings see;

The National Trade and Professional Associations of the United States, 2000
State and Regional Associations of the United States, 1999

Visit UA's College of Engineering www.eng.ua.edu

Visit UA's Career Center www.career.ua.edu

GEORGE MOORE

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OBJECTIVE

To obtain an entry-level computer engineer position that allows me to utilize all my skills to their full potential, as well as acquire new skills.

EDUCATION

Bachelor of Science, Electrical and Computer Engineering, December 2001
Minor: Mathematics, Computer Science
The University of Alabama, Tuscaloosa, AL
GPA: 3.94/4.00

WORK EXPERIENCE

Owner, January 1999-Present

ViperSys Computer Services, Birmingham, AL

- Repaired and install computer systems and equipment.
- Taught users how to operate computers.
- Installed satellite dish systems and home entertainment systems.

Teaching Assistant, January 2000-Present

Department of Electrical Engineering, University of Alabama

- Taught Electrical Engineering and Computer Science students.
- Helped students understand laboratory assignments.
- Graded homework as well as make homework solutions.

Summer Internship, May 2000-August 2000 and May 2001-August 2001

Georgia Power Company, Atlanta, GA

- Designed, programmed, and installed an emergency Trouble Call System.
- Designed and programmed Remote Terminal Units.
- Wrote programs to communicate with RTU's.
- Automated weekly and daily tasks.
- Worked with C++, assembly, and Unix.

Computer Lab Monitor, August 1997-May 2000

Department of Arts and Science, University of Alabama

- Assisted engineering students with computer use.
- Consulted the staff on computer usage and helped troubleshoot computer problems. Performed office duties.

COMPUTER SKILLS

All versions of Microsoft's operating systems up to Windows 2000, Unix/Linux, MacOS, Microsoft Office. Fluent in C/Visual C++, know assembly, AHDL, PSPICE, UML, and familiar with other languages. Experience with microchip design, microcontroller programming, PLC programming. Able to learn applications quickly.

ACTIVITIES/HONORS

Eta Kappa Nu Electrical Engineering Honor Society

Recording Secretary January 2001

President May 2001