WHAT CAN I DO WITH A MAJOR IN … COMPUTER SCIENCE

OCCUPATIONAL SUMMARY:
Computer scientists are concerned with computing and the design of computational systems. According to Boston University (2003), computer scientists utilize algorithms to determine efficient solutions to complex problems. Boston University explains that solving these complex problems often involves developing programming languages to express algorithms or designing computer systems that efficiently execute an algorithm. Boston University further explains that computer scientists often work with algorithms that relate to acquiring, communicating, processing, storing, or accessing information. Computer scientists are sought out by many industries such as healthcare, finance, and software development.

EMPLOYMENT REQUIREMENTS:
A bachelor's of science degree is the minimum formal education required to enter the field of Computer Science. Many employers value practical experience, making it important for computer engineering students to participate in internships and Co-ops while completing their degree. A graduate degree (M.S., M.E., and/or Ph.D.) may be required to hold positions in management, research, or academia. Consult O'Net for more information on the specific KSAs (Knowledge, Skill, Ability) that are required for this career.

THE UNIVERSITY OF NEW MEXICO:
The UNM Department of Computer Science offers a Bachelor of Science (B.S.) in Computer Science, a Master of Science (M.S.) in Computer Science, and a Doctor of Philosophy (Ph.D.) in Computer Science. Consult the department website for more information on degree programs and research areas. The College of Engineering also offers various other degree tracks such as the Master of Engineering and the 2 + 3 B.S. & Master of Business Administration program. More information on these programs can be found in the University Catalog by selecting “Colleges” on the right and selecting “School of Engineering”.

INDUSTRIES & TARGET EMPLOYERS:
A variety of employers specifically recruit UNM students and alumni. Consult UNM’s Lobo Career Connection for a complete list of employers and current job postings. Speak with a Career Development Facilitator at the UNM Office of Career Services for help with identifying employers or additional resources for your occupation of choice.

Business/Industry
Software development, systems development or analysis, web development, database development, security, modeling, consulting, research, artificial intelligence

Government
Federal, national and local government agencies, Department of Defense, Department of Energy, NASA, research, national laboratories

Education
University/college instruction or administration, researcher

SUGGESTED STRATEGIES:
• Gain related computer science professional experience through involvement in internships, student employment, Co-ops, research, and/or volunteer opportunities.
• Shadow professionals in the field to gain a better understanding of the occupation and to build relationships with professional mentors.
• Build your network and get involved on campus through student organizations and campus events. The School of Engineering website outlines student organizations that are affiliated with the School of Engineering as well as the Computer Science department. You can find more organizations and events at the Student Activities Center website.
• Attend career-related campus events such as career fairs, company information sessions, and or career workshops.
• Students who are interested in graduate school should maintain a high undergraduate GPA, develop relationships with faculty, and participate in undergraduate research. UNM’s Research Opportunity Database at http://research-match.unm.edu. Some research opportunities include
  o Ronald E. McNair Scholars Program
  o Research Opportunity Program (ROP)
  o Minority Access to Research Careers Program (MARC)
  o Initiative for Maximizing Student Development (IMSD)
  o Undergraduate Pipeline Network
  o UNM Engineering Research Centers
  o Research at the University of New Mexico
• Speak with mentors and faculty about career opportunities.
• Job leads can be found on your department’s website, list-serv, newsletters, and social media sites.
• Familiarize yourself with the federal job application process.

STATE & NATIONAL WAGES:
Adapted from CareerOneStop (2013)

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INFORMATIONAL WEBSITES:
UNM Computer Science Career Center
Computer Science Student Network
Association for Computing Machinery (ACM)
International Association of Computer Science and Information Technology
IACSIT Software Engineering Society

REFERENCES: