Steve Yeh 3/21/13

Ms. Ambrosio Career Research Paper

The career I chose was to be a computer software engineer. This job appeals to me greatly because I love to work with computers. I love to work with the new technology and innovations of today. I also like to solve problems logically. In addition, I like to work with problems of the fields of math and science. Furthermore, I like to create and evaluate my projects, which, in the case of being a computer software engineer, I have to create new kinds of software and assess it.

The career of the computer software engineer is in the scientific job area. I scored a 28 in that area on the Harrington O’Shea Survey, which was my highest scoring career area. Also, the subjects I like which are Math, Science, Art, and Technology fit into the scientific career field. Some work values that are linked to the scientific job area that I have are independence, working with my mind, setting and accomplishing high achievements and having prestige. The abilities I have that are connected to the scientific career field include being, mathematical, scientific, computational, spatial, artistic, and mechanical.

Licenses and certifications aren’t mandatory for being a computer software engineer, but are preferred by most employers. The ICCP or the **Institute for Certification of Computing Professionals and the CCP, the Certified Computing Professional, are certificates that most employers look for on resumes and transcripts. Training and certification by the SME institution and the ACM society are also highly looked upon by employers. Examinations are also not necessary for the profession of being a computer software engineer, but there are exams for the ICCP, CCP and the SME certifications. Membership in the ACM society is solely through professional experience.**

**Education is preferred by employers. Having a liberal arts degree with substantial computer and programming and training would certainly increase the chances of being hired. Most employers would look for a bachelor’s degree in computer science, information systems, engineering or physics. A master’s degree in any of the fields above would make the chances of being hired become higher. Training of knowledge of HTML, Visual Basics, Java, or C++ with Windows would also increase chances of being hired.**

**The salary on average per year would be about $85,000. The range is between $50,000 to more than $130,000. The benefits for a computer software engineer include health care, disability and pension funds.**

**There are many tasks for computer software engineers. One is to design and develop new software for computers and mobile devices. Technology is constantly changing, so computer software engineers need to keep up to date with the devices their software is compatible with. Another is to coin new algorithms to help the software be executed in the computer. Algorithms can also make software more efficient and powerful. Also, a software maker also has to create flowcharts, diagrams and documentations to explain the software its’ uses, how it will be designed etc. In addition, software engineers need to help identify problems in businesses and sometimes even engineering and science. These problems may range from a configuration in router to solving a problem to creating an algorithm for a scientist for him/her to continue research. Software engineers will have to write programs in C++ and Java as well.**

**Being a computer software engineer is associated with many great advantages. Software makers make a great impact in society. They work with the new technology, solving problems and creating solutions to everyday computing problems. Also, software engineers can create virtually anything that comes to their mind. Finally, the money earned being a software engineer is quite good. Software engineers sell their software for even more money, sometimes creating a fortune for themselves.**

**There also many disadvantages due to the many hours spent at the computer, typing. For one, spending too many hours looking at the computer may cause eye strain. Long hours of sitting also cause backaches. Staying in the typing position causes carpal tunnel and other hand/wrist injuries. It may even get boring designing and editing the same software for a whole day.**

**The future outlook of being a computer software engineer is excellent. It is predicted to become the fastest growing occupations through 2016. There will be a high demand for computer software engineers. It will be fairly competitive, since technology will become more and more connecting into everyday life. There will be high expectations coming from the employer to create new software and keeping up to date with the ever-growing technology.**