Matthew Johnson

Career Exploration Steps & Pacing



I completely agree with the top 3 scores that I received. I have always been described as artistic because I have such a deep passion for writing movie scripts, editing videos, and just creating movies in general. You will constantly find me plotting out the script or story board for my next big video project. For example, when I’m finished with this, I’ll likely be typing out the script to a project I’m working on. I love to use my imagination and be creative.

I’m realistic in that I like doing hands on things. I love to build things. Ever since I was a kid, my parents have said that I was going to be an engineer just by observing the way I acted. As a child, I loved to create things out of construction paper. As my Mom always said, “He can create anything out of construction paper and tape.”

I’m conventional in that I like having a set list of rules to follow. I don’t like when things are left up in the air and can be questioned. I want guidelines to follow and a superior to take orders from. An example of me following directions and using my hands would be my love for playing with Legos. Even today, I can sit down and build a spaceship or something out of Legos. As a kid, I loved getting the Star Wars brand Legos. I could follow the steps perfectly at a young age and would always complete projects that were said to be ahead of my years.

Careers:

1. Computer Hardware Engineer
2. Film or Video Editor
3. Creative Writer
4. Electrical Engineer
5. Director
6. Astronomer
7. Aerospace Engineer
8. Writer

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| Career Research Questions  | Computer Hardware Engineer | Film Media |
| HR1. Occupation Definition | Computer hardware engineers research, design, develop, and test computer equipment such as chips, circuit boards, or routers. By solving complex problems in computer hardware, these engineers create rapid advances in computer technology. | Film and video editors and camera operators record images that entertain or inform an audience. Camera operators capture a wide range of material for TV shows, motion pictures, music videos, documentaries, or news and sporting events. Editors construct the final productions from the many different images camera operators capture. They collaborate with producers and directors to create the final production. |
| HR2. Related Occupations | Computer Software Engineering, Electrical Engineering, Mechanical Engineering, Informational Technology, Aerospace Engineering. | Director and/or Producer, Actor, Announcer, Editor, Photographer. |
| HR3. Compatible Personality Type(s) | Investigative: Most Computer Engineers have many ideas and enjoy thinking rather than doing physical activity. | Artistic: Film and Video editors need to be creative and think outside the box in order to make something look special. The actors might look good on the screen, but the editor is the one that makes them look good.  |
| HR4. Education/Training/Qualifications required | Most entry-level computer hardware engineers have a bachelor’s degree in computer engineering, although a degree in electrical engineering generally is acceptable. | Film and Video editors generally need a Bachelor’s Degree and extensive training with a high end editing program like Final Cut Pro X or Adobe Premiere. |
| HR5. Technology Skills needed | In order to be a Computer Engineer, one must understand a computer like the back of his/her own hand. They are going to be taking computers apart and putting them back together, so plenty of technological skills will be necessary.  | Film and Video editors need to understand how to use various editing programs as well as how to import or export video footage to and from their computer. They also need to understand the basics of a computer in order to access files quickly and efficiently.  |
| RC1. Entry Level Average Salary | $98,810 | $50,930 |
| RC2. 10 yr. Projected Job Growth | The projected growth of computer engineering is that it’ll increase by 9%, so there will be more jobs. | There is a projected growth of 4% in the next ten years which is below average.  |
| RC3. Organizations that hire for this occupation | Apple, Dell, HP, IBM.  | Nationally: Lucasfilm, Universal, Newscenter 5 |
| ISC1. Working Conditions | Computer hardware engineers usually work in research laboratories that build and test various types of computer models. Most work in high-tech manufacturing firms. Some work in computer systems design firms, research and development firms, or for the federal government. Most work in research laboratories that build and test various types of computer models. More than 95 percent of computer hardware engineers work in metropolitan areas. Most work under 40 hours a week, but some do go over that mark.  | As an editor, I would be the one sitting indoors and doing all the behind the scenes work. The environment is comfortable but can be stressful when under pressure. |
| ISC2. Part of a Union? (Y/N) | No, they are not. | No |
| ISC3. What kind of Advancement Opportunities are there? | Yes, there are opportunities to get promoted. If one obtains a master’s degree in Electrical or Mechanical Engineering, management jobs are more accessible. Also, many companies will play for your graduate school while you continue to work at their facility.  | The only opportunities for advancement would be if your work got noticed by a higher, larger company like Universal, 20th Century Fox, etc. Otherwise, you’ll generally stay in the same place.  |
| Universities/Colleges/Specialized Training Organizations | Western New England UniversityWPIUniversity of Rhode IslandMerrimack CollegeSyracuse University | Fitchburg State UniversityEmerson CollegeQuinnipiac University |

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| Career Research Questions  | Writer/Creative Writer (Two different professions but could only find it listed as one) | Electrical Engineer |
| HR1. Occupation Definition | Writers and authors develop original written content for advertisements, books, magazines, movie and television scripts, songs, and online publications. | Electrical engineers design, develop, test, and supervise the manufacturing of electrical equipment such as electric motors, radar and navigation systems, communications systems, and power generation equipment. Electronics engineers design and develop electronic equipment, such as broadcast and communications systems—from portable music players to global positioning systems (GPS). |
| HR2. Related Occupations | Announcers, Editors, Reporters. | Aerospace Engineering, Biomedical Engineering, Computer Hardware Engineering. |
| HR3. Compatible Personality Type(s) | Artistic | Investigative |
| HR4. Education/Training/Qualifications required | A college degree is generally required for a salaried position as a writer or an author. Proficiency with computers and communications equipment also is necessary to stay in touch with sources, editors, and other writers while working on assignments. Excellent writing skills are essential. | Electrical and electronics engineers must have a bachelor’s degree. Employers also value practical experience, so graduates of cooperative engineering programs, in which students earn academic credit for structured work experience, are valuable as well. |
| HR5. Technology Skills needed | Writers should be fluent with Microsoft Word for it’ll most likely be their “pen and paper.” | Electrical Engineers usually have to understand a computer very well, but not to the same extent as Computer Engineers. |
| RC1. Entry Level Average Salary | $55,420 per year $26.64 per hour | $87,180 per year $41.92 per hour |
| RC2. 10 yr. Projected Job Growth | 6% (Slower than average) | 6% (Slower than average) |
| RC3. Organizations that hire for this occupation | News Stations, Newspapers, Self-Employment, Music Industry, Film Companies | Every electronic or computer company needs an electrical engineer as do most companies worldwide. If there are lights in your facility, you need an electrical engineer. If there’s heat in your building, you need an electrical engineer. For anything electronic, an electrical engineer will have your back.  |
| ISC1. Working Conditions | Writers and authors work in an office, at home, or wherever else they have access to a computer. | Electrical and electronics engineers generally work indoors in offices. However, they may visit sites to observe a problem or a piece of complex equipment. Most work full-time. |
| ISC2. Part of a Union? (Y/N) | **No** | **No** |
| ISC3. What kind of Advancement Opportunities are there? | Writers can advance to higher positions. For example, a typical reporter could advance to a columnist on a Newspaper or an idea jotter could advance to script writing in the film industry. | Electrical Engineers have many options once they obtain their master’s degree. It opens up management opportunities as well as general, higher paying jobs.  |
| Universities/Colleges/Specialized Training Organizations | **Fairfield University****Lesley College****Hampshire College** | **Western New England University****University of Rhode Island****WPI****RPI****Merrimack College****Syracuse University**  |

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| Career Research Questions  | Director | Astronomer |
| HR1. Occupation Definition | Producers and directors are in charge of creating motion pictures, television shows, live theater, and other performing arts productions. They interpret a writer’s script to entertain or inform an audience. | Physicists and astronomers study the fundamental nature of the universe, ranging from the vastness of space to the smallest of subatomic particles. They develop new technologies, methods, and theories based on the results of their research that deepen our understanding of how things work and contribute to innovative, real-world applications. |
| HR2. Related Occupations | Film and Video Editors, Camera Operators, Actors, Announcers | Biochemists, Biophysicists, Chemists, Computer Hardware Engineers |
| HR3. Compatible Personality Type(s) | Artistic | Investigative |
| HR4. Education/Training/Qualifications required | Most producers and directors have a bachelor’s degree and several years of work experience in a related occupation, such as an actor or writer. | Physicists and astronomers need a Ph.D. for most research jobs. Many physics and astronomy Ph.D. holders begin their careers in a temporary postdoctoral research position, which typically lasts 2 to 3 years. |
| HR5. Technology Skills needed | Most producers and directors have a bachelor’s degree and several years of work experience in a related occupation, such as an actor or writer. | Physicists and Astronomers are required to know how to use many forms of technology. From computers to high powered lasers, they use it all. |
| RC1. Entry Level Average Salary | $68,440 per year $32.90 per hour | $105,430 per year $50.69 per hour |
| RC2. 10 yr. Projected Job Growth | 11% (About as fast as average) | 14% (About as fast as average) |
| RC3. Organizations that hire for this occupation | Local Schools, Major Film Organizations, CBS | NASA, Colleges, Universities, Government Research Facilities |
| ISC1. Working Conditions | Producers and directors work under a lot of pressure, and most are under constant stress to find their next job. Work assignments are usually short, ranging from 1 day to a few months. Producers and directors may have long periods of unemployment. They often hold another job to make a living. They sometimes must work in unpleasant conditions, such as bad weather. | Most astronomers work in offices, but they also may spend many hours working in observatories. At observatories, they use ground-based telescopes to gather data and make observations. Increasingly, observations are done remotely via the Internet without the need for travel to an observatory. Some astronomers temporarily work away from home at national or international facilities that have unique equipment, such as particle accelerators and gamma ray telescopes. They also frequently travel to meetings to present research results, discuss ideas with colleagues, and learn more about new developments in their field. |
| ISC2. Part of a Union? (Y/N) | **No** | **No** |
| ISC3. What kind of Advancement Opportunities are there? | If your work is noticed, you may receive a job offer from a larger, higher paying company.  | In the career as astronomers, those working in research centers as research assistants and technicians can be promoted as senior researchers. They can also get promoted as supervisors or managers, with years of experience and plenty of research in astronomy. Those with a Ph.D. or master's degree in astronomy can easily get promotions. Others with a bachelor's degree face tough competition and struggle as the study of astronomy is the most challenging of all available jobs. Some of them in colleges and institutes working as assistant professors can become faculties of astronomy or astrophysics. Others may become trainers in research centers to train the entry-level astronomers. |
| Universities/Colleges/Specialized Training Organizations | Fitchburg State UniversityEmerson CollegeQuinnipiac University | **Tufts University****Wellesley College****Smith College** |

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| Career Research Questions  | Aerospace Engineer |
| HR1. Occupation Definition | Physicists and astronomers study the fundamental nature of the universe, ranging from the vastness of space to the smallest of subatomic particles. They develop new technologies, methods, and theories based on the results of their research that deepen our understanding of how things work and contribute to innovative, real-world applications. |
| HR2. Related Occupations | Biochemists, Biophysicists, Chemists, Computer Hardware Engineers |
| HR3. Compatible Personality Type(s) | Investigative |
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| ISC2. Part of a Union? (Y/N) | **No** |
| ISC3. What kind of Advancement Opportunities are there? | In the career as astronomers, those working in research centers as research assistants and technicians can be promoted as senior researchers. They can also get promoted as supervisors or managers, with years of experience and plenty of research in astronomy. Those with a Ph.D. or master's degree in astronomy can easily get promotions. Others with a bachelor's degree face tough competition and struggle as the study of astronomy is the most challenging of all available jobs. Some of them in colleges and institutes working as assistant professors can become faculties of astronomy or astrophysics. Others may become trainers in research centers to train the entry-level astronomers. |
| Universities/Colleges/Specialized Training Organizations | **RPI****WPI****Western New England University****Syracuse University** |