

# Career Exploration Report

## Intelligence Analysis & Neurology

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### ABSTRACT

The purpose of this career exploration report was to identify two possible futures careers, research them, and find four feasible internships in the area. The careers chosen to investigate and find internships for were an intelligence analyst and neurologist. To learn more about each occupation, essential questions were written; these questions helped to guide the research and ensure that the report included all the relevant and important information. Then, the critical subjects of salary, daily responsibilities, necessary qualities, work environment, education, and possible college majors were explored for each profession. The most prevalently used websites were O\*NET, Northeastern University, International Relations EDU, Highland Hospital, and Prospects. A combination of government, informational, and university sites were used. Finally, internships were investigated, focusing on the Dayton area and the sought-after work environment. The most promising internship is the Air Force Cognitive Neuroscience Research Lab because it combines research, developing medical interventions, and break-through neurology. Next steps include looking for colleges that are top in the relevant majors for the career and contacting the potential internships.

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# CAREER EXPLORATION REPORT

## OVERVIEW

The purpose of this document is to report the research process of Madailein Logan during her career exploration in Technical Reading and Writing at the Dayton Regional STEM School during the 2020-21 school year. The following sections document essential questions used to begin the career exploration process, potential careers and rationales for choosing those careers, an overview of the research process used during Madailein Logan's career exploration, resources found and used during the process, a resolution, and a reflection of the process as well as a daily logbook of all tasks completed.

The following Driving Question was used to guide this career exploration process: How can I locate a potential internship site, college, potential career by conducting extensive independent research?

## ESSENTIAL QUESTIONS

Throughout the career exploration research process, the following questions were asked:

- WHAT ATTRIBUTES/QUALITIES ARE REQUIRED FOR THE CAREER?
- WHAT IS THE PROJECTED JOB GROWTH?
- WHAT LEVEL OF EDUCATION IS NEEDED?
- WHAT ENVIRONMENT IS THE CAREER IN?
- WHAT INTERNSHIPS IN THE AREA ARE AVAILABLE FOR THIS CAREER?
- WHAT IS THIS CAREER'S DAILY TASKS/RESPONSIBILITIES?
- WHAT DOES A NEUROLOGIST LOOK LIKE IN CHINESE-SPEAKING COUNTRIES?

## POTENTIAL CAREERS & RATIONALES

This section provides a comprehensive list of potential future careers as well as rationale for choosing those careers.

## INTELLIGENCE ANALYST

According to International Relations EDU, an intelligence analyst evaluates data or intelligence and then filters through it to decide what is important and credible. Intelligence analysts can work for the government or military (FBI, CIA, and NSA) or non-government organizations that use the intelligence to find trends in the market and gain information that can give them an edge over their competition. Not letting bias affect their evaluation and being an expert in a subject matter or region is very important for this career. Often, analysts compile the important data in to a written or oral report for their employer (International Relations EDU).

The contributors of O\*NET OnLine suggest that attention to detail, leadership skills, dependability, stress tolerance, and initiative are some of the attributes needed to be an intelligence analyst. Attention to detail is especially important to find patterns and importance in the large amounts of data analysts must sort through. In the article, "What Does an Intelligence Analyst Do," the author describes the daily responsibilities for intelligence analysts as "Researching and collecting relevant information", "Evaluating the significance and validity of incoming information", "Analyzing and interpreting information", "... analytical conclusions based

on ... analysis", and "Communicating their findings with other" (O'Connor). Intelligence analysts present their findings when finished with this process and then start over with a new set of data (International Relations EDU). Analysts must be independent and able to manage their workload with almost no supervision (O\*NET OnLine).

As stated in "An Intriguing Career: How to Become an Intelligence Analyst", intelligence analysts in most jobs must have a bachelor's degree and related work experience or field training (Norwich University Online). Undergraduate "...degrees in political science, economics, history, and computer science are common..." (International Relations EDU). Graduate degrees with majors in intelligence, international affairs/relations, international business/economics, national security, psychology, or terrorism are prevalent. When hiring, organizations, corporations, or government agencies are looking for analysts with expertise in a language, subject matter, region, or country depending on the opening. Corporations are looking for someone to provide them with intelligence in a product market/marketing and that can get them ahead of their competitors. Consequently, they will look for intelligence analysts that have knowledge in subjects related to their product market (International Relations EDU).

"The employment outlook is positive for intelligence analyst careers" (Norwich University Online). Norwich University Online also notes that "intelligence relations" (a common major for intelligence analysts) as one of the majors with "the highest salary and best career prospects" (Norwich University Online). Job opportunities for intelligence analysts working in the military should increase as well (Norwich University Online). Intelligence analyst's salaries depend on experience, type/amount of education, and the skillset (International Relations EDU). Analysts that work with the government may earn between \$50,964 and \$99,296 a year. Intelligence analysts with other organizations may earn between \$34,662 and \$66,688 a year. Again, all of this largely varies based on the position, organization, and applicant (International Relations EDU).

I became interested in becoming an intelligence analyst when I matched with the career on YouScience. I read more about the career and discovered that it contained researching, something that I enjoy doing. It also requires learning about other cultures and politics so that the intelligence analysts can analyze the data knowledgeably. I am in an international children's organization called CISV and traveled to many countries in Europe through it and learned about how they differ from the US. These experiences have given me an appreciation of other cultures and has made me interested in learning about them. I also enjoy researching and analyzing information, which is most of what intelligence analysts do.

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## POSSIBLE INTERNSHIPS FOR INTELLIGENCE ANALYST

Internships that would be beneficial for intelligence analysts are ones that show the researching and summarizing of important information from a data set. Intelligence analyzing generally requires knowledge on a specific topic, so choosing an internship with an analyst that is in a field reflecting the student's interests is recommended. Doing this allows the student to know how an intelligence analyst with a job in the specific field/subject fits them. Two potential internship locations and contact information are provided below.

### **US Department of Defense Intelligence Operations**

Address: 3100 Research Blvd, Kettering, OH 45420

Phone: (937) 781-1025

## Ball Aerospace

Address: 2875 Presidential Dr, Fairborn, OH 45324

Phone: (937) 429-5005

## NEUROLOGIST

As stated in the article “Neurologist”, neurologists manage and diagnose diseases, disorders, and conditions that affect “neurological function” (AGCAS Editors). Neurologists treat and identify strokes, Parkinson’s disease, Alzheimer’s disease, epilepsy, nervous system infections, brain tumors, etc. Practicing neurologists often work in teams with other neurologists and/or medical professionals (AGCAS Editors). The contributors of O\*NET OnLine outline that, daily, neurologist’s interview, examine, and develop treatment plans for patients suffering from a neurological condition, as well as interpret lab results. Neurologists must have communication skills, work well with others, be investigative, and have time management skills (O\*NET OnLine).

According to the Highland Hospital Neurology, neurologist must have a bachelor’s degree, four years of medical school (an M.D. or D.O. degree), a yearlong internship, and at least three years in a neurology residency program. Common majors for students that would like to practice neurology comprise of biology, chemistry, physics, or pre-med. After earning a bachelor’s degree, neurologist take the MCAT (a medical admissions exam) and send the score to their preferred medical schools. In medical school, they work in a classroom for two years and clinical rotations in a teaching hospital for two years. Before an internship, neurologists must first take an exam (Careers In Psychology). Salaries for neurologists can range from \$122,000 to \$214,000 depending on experience, location, and type of workplace (Glassdoor).

According to Ms. Chen, a Chinese teacher at the Dayton Regional STEM School, due to China having a very large population, doctors in China must interact and diagnose many more patients in a day. In the US, neurologists spend around forty-five minutes with the patient to discuss the symptoms and possible issues, whereas in China, since there are so many patients to see in one day, they have much less time (Chaney). As stated by the article “Neurology and Neurologic Practice in China”, neurologists in China are also affected by the fact that there is no legislation to protect doctors and nurses. For instance, in the US, there are laws that protect doctors from malpractice lawsuits and China does not have these. This means that if the doctor makes a mistake, they are much more likely to get sued. Also, unlike the US, China does not require a general college education before medical school (Shi).

I am interested in becoming a neurologist because I am extremely curious about the brain, the different functions of nerves, how they communicate between themselves, and why “we only understand about 10 percent of how [the brain] ... functions” (Boyd). I have been diagnosed with anxiety and insomnia and so, the brain has always been an interesting topic for me. After being diagnosed, I wondered how mine is different and how it become that way. I want to enter a career that helps others and the medical field is one of the most hands-on ways to do that. I enjoy experimenting and learning new information and I work well on teams. Neurology fits these traits because there is so much we don’t know, and it is a growing field with new information and tests happening daily.

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## POSSIBLE INTERNSHIPS FOR NEUROLOGIST

Internships that would be beneficial for a neurologist help the student to experience the work environment and the variety of patients that they treat. Neurologists can work in private practices, hospitals, or labs and the internship should help the student determine which of these environments they prefer. Two potential internship locations and contact information are provided below.

### **Air Force Cognitive Neuroscience Research Lab**

Contact: Dr. Richard Andy McKinley

Address: 4185 Logistics Avenue, Wright-Patterson AFB, OH 45433

Email: richard.mckinley.2@us.af.mil

### **Premier Health Clinical Neuroscience Institute**

Address: 30 E Apple St, Suite 5254, Dayton, OH 45409

Phone: (937) 208-4200

## **RESOURCES**

This section provides a list of resources found during the career exploration research process (can include resources used to explore your career fields, possible internships, etc.).

- AGCAS Editors. (2019, October). *Neurologist*. Retrieved from <https://www.prospects.ac.uk/job-profiles/neurologist> - Provided an overall description of neurology as a whole and common daily tasks.
- Boyd, R. (2008, February 07). *Do People Only Use 10 Percent of Their Brains?* Retrieved from <https://www.scientificamerican.com/article/do-people-only-use-10-percent-of-their-brains/> - Provides a statistic about how much of the brain is understood and has a known function.
- Careers In Psychology. (2019). *Careers in Neurology*. Retrieved from <https://careersinpsychology.org/neurology-careers/> - Provides common bachelor's degree majors for neurologists, necessary certifications, and information on medical school.
- Chaney, P. (2018, September 21). *Qualities of a Neurologist: Curious, Committed, Compassionate*. Retrieved from <https://medschool.ucla.edu/body.cfm?id=1158> - Provides information on the average of how long neurologist spend with patients in the US.
- Glassdoor. (2020, December 8). *Neurologist Salaries in United States*. Retrieved from [https://www.glassdoor.com/Salaries/us-neurologist-salary-SRCH\\_IL.0,2\\_IN1\\_KO3,14.htm](https://www.glassdoor.com/Salaries/us-neurologist-salary-SRCH_IL.0,2_IN1_KO3,14.htm) - Provides the salary range for neurologists in the US.
- Highland Hospital Neurology. (n.d.). *What is a Neurologist?* Retrieved from <https://www.urmc.rochester.edu/highland/departments-centers/neurology/what-is-a-neurologist.aspx> - Provides the education requirements for neurologists.

- International Relations EDU. (n.d.). *What is an Intelligence Analyst?* Retrieved from <https://www.internationalrelationsedu.org/intelligence-analyst/> - Provides salary, career description, types of intelligence analysts, and common college majors for intelligence analysts.
- Norwich University Online. (2020, November 23). *How to Become an Intelligence Analyst: Skills Required and Salary*. Retrieved from <https://online.norwich.edu/academic-programs/resources/intelligence-analyst> - Provides the education needed and the job outlook for neurologists.
- O\*NET OnLine. (2020). *Summary Report for: 29-1217.00 - Neurologists*. Retrieved from <https://www.onetonline.org/link/summary/29-1069.04> - Provides the necessary attributes to become a neurologist and daily responsibilities.
- O\*NET OnLine. (2020). *Summary Report for: 33-3021.06 - Intelligence Analysts*. Retrieved from <https://www.onetonline.org/link/summary/33-3021.06> - Provides the necessary attributes/qualities to become an intelligence analyst.
- O'Connor, S. W. (2020, February 11). *What Does an Intelligence Analyst Do?* Retrieved from <https://www.northeastern.edu/graduate/blog/what-does-an-intelligence-analyst-do/> - Provides the daily responsibilities of intelligence analysts.
- Office of the Director of National Intelligence. (n.d.). *FBI Intelligence Analyst*. Retrieved from <https://www.intelligence.gov/index.php/people/day-in-the-life/481-fbi-intelligence-analyst> - Provides an overview of the specific reasonability's intelligence analysts that work for the FBI have.
- Shi, F., & Jia, J. (2011, November 29). *Neurology and Neurologic Practice in China*. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3235353/> - Provides the differences between practicing neurology in the US and China.

## REFLECTION

This section provides the reflection and resolution to Madailein Logan's career exploration.

Writing this and exploring different careers forced me to consider what subjects and topics I could see myself enjoying learning about or working on every day. Through choosing careers and writing my report, I learned that just because I find a subject or topic appealing does not mean that the work environment or cliental is a fit for me. I also learned that being a practicing Neurologist physician is not the correct profession for me because I would like to help make discoveries and work on cutting edge technology involving the brain. I have discovered that I would prefer to not work directly with the patients and would rather research and perform experiments. Researching the daily tasks and responsibilities of each career helped me learn the most about the profession and whether it is a fit for me.

I will follow a similar research process in the future when considering other careers I might be interested in. Next steps include contacting the internship sites and setting up a date and time to discover the work environment I prefer and whether the profession is a good match for me. I can also start to look at medical schools or colleges that have highly ranked courses for the major I choose. I have discovered that if I do choose to be in the medical field that I would prefer to not interact with the patients. From this report I can conclude that intelligence analyzing and a neurologist that focuses on research are both careers that I could see myself doing.

## LOGBOOK

The following logbook was kept during Madailein Logan's career exploration process. It details the tasks completed during this process including sources consulted, essential questions asked and answered, as well as any other information collected each day.

Date	Tasks Completed
11/6/20	<ul style="list-style-type: none"> <li>• Wrote the Essential Questions</li> <li>• Decided on new second career</li> <li>• Researched second career.</li> </ul>
11/9/20	<ul style="list-style-type: none"> <li>• Read my sources for both of my careers</li> <li>• Printed out all of my sources</li> </ul>
11/10/20	<ul style="list-style-type: none"> <li>• Looked at reliability of sources</li> </ul>
11/12/20	<ul style="list-style-type: none"> <li>• Completed career summary</li> </ul>
11/16/20	<ul style="list-style-type: none"> <li>• Outlined each of the paragraphs</li> <li>• Determined the topics I would cover</li> </ul>
11/17/20	<ul style="list-style-type: none"> <li>• Started to draft paragraphs for Career 1</li> </ul>
11/18/20	<ul style="list-style-type: none"> <li>• Worked on drafting paragraphs for Career 1</li> </ul>
11/19/20	<ul style="list-style-type: none"> <li>• Worked on drafting paragraphs for Career 2</li> </ul>
11/20/20	<ul style="list-style-type: none"> <li>• Worked on drafting paragraphs for Career 1 &amp; 2</li> </ul>
11/23/20	<ul style="list-style-type: none"> <li>• Researched career internships</li> </ul>
11/24/20	<ul style="list-style-type: none"> <li>• Finished draft for Career 1</li> </ul>
11/27/20	<ul style="list-style-type: none"> <li>• Finished draft for Career 2</li> </ul>
11/30/20	<ul style="list-style-type: none"> <li>• Received peer feedback</li> <li>• Gave peer feedback</li> </ul>
12/1/20	<ul style="list-style-type: none"> <li>• Researched career internships</li> </ul>
12/2/20	<ul style="list-style-type: none"> <li>• Revised paragraphs for Career 1 and 2</li> </ul>
12/4/20	<ul style="list-style-type: none"> <li>• Completed internship description and paragraphs</li> </ul>
12/7/20	<ul style="list-style-type: none"> <li>• Completed abstract</li> </ul>
12/8/20	<ul style="list-style-type: none"> <li>• Received feedback from teachers</li> </ul>
12/9/20	<ul style="list-style-type: none"> <li>• Completed reflection</li> <li>• Revised based on teacher feedback</li> <li>• Completed resources and summary for each</li> <li>• Revised design</li> </ul>