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D596 – The Data Analytics Journey
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Task 2

A. Create a career plan.

First, I must complete my master's degree in data analytics with a concentration in data science. I will gain Python, Tableau, SQL, and machine learning skills during this time and work on a portfolio. The portfolio can include my projects completed in the MSDA and on the side. I should aim to find an entry-level position or an internship during this time.
Once I graduate, I can stay with the entry-level position or find an entry-level position. After gaining experience, I can climb up the ladder and pursue an intermediate position. Afterward, I can look for an advanced role and a leadership position.

1. **Describe** three **different roles or careers in data analytics.**

   Data analysts are found in numerous positions in many organizations. They are responsible for data collection, cleaning, analysis, reporting, and decision-making (Western Governors University, 2020).
   Business intelligence analysts help businesses make daily decisions by creating reports, forecasting, dashboard creation, data analysis, and data collection (Western Governors University, 2020).
   Decision scientists, also known as decision analysts, are responsible for statistical analysis, modeling and simulation, optimization, innovation, and improving decision-making processes (Western Governors University, 2020).

   a. **Discuss the differences between the roles or careers from part A1.**

      Data analysts and business intelligence analysts hold similar roles and possess identical responsibilities. The primary difference between the two roles is the organizations that each is found at. BI analysts are primarily within the business sector, while data analysts are in the STEM, finance, and business sectors. Decision sciences mainly focus on data analytics' statistical and decision-making side (Western Governors University, 2020).

2. **Describe how** *each* **role from part A1 supports the data analytics life cycle.**

   Data analysts use each data analytics life cycle step but tend to cover each step briefly. This is to ensure that stakeholders can make sound decisions for the company. BI analysts follow each data analytics life cycle step, emphasizing data reporting and visualization. The emphasis ensures that decisions are made with a great understanding of the data's findings. Decision scientists focus intensely on business understanding by understanding what stakeholders seek before performing analyses. They also mainly use data modeling, data mining, and machine learning to provide information so that stakeholders feel confident in their decisions for the company or business.

B. Compare three **different data analytics disciplines as described by ProjectPro.**

Data science is focused on "providing strategic, actionable insights to people who don't know what the field consists of" (ProjectPro, 2024). It can be applied to any business sector, but problems must be solved and presented in a specific way so everyone can understand the findings.

Data analysis is used to develop and analyze relationships for business decisions with a more abstract way of using and presenting the data (ProjectPro, 2024). Problems that data analysts need to solve tend to be less rigid and have more room for creativity and uniqueness.

Machine learning focuses on teaching computers to adapt to data without being programmed explicitly for that data through unsupervised, supervised, and reinforcement learning (ProjectPro, 2024). Unlike data science, many techniques and strategies are used for machine learning.

1. **Identify** three **types of careers from the Bureau of Labor and Statistics government data in your career plan**.

   - Data Scientists
   - Financial Analysts
   - Operations Research Analysts

2. **Identify your academic skills and needs for the careers considered in part B1.**

   For all careers listed, a candidate must have at least a bachelor's degree in mathematics, statistics, computer science, business, or engineering (U.S. Bureau of Labor Statistics, 2023). Professionals in these fields must be analytical, communicative, able to think critically, interpersonal, and have math, programming, and problem-solving skills.

   I do have a bachelor's degree, but it is in biomedical science. I hope that by completing the MSDA, I will have met the education requirements for positions in these careers. Further, I haven't had significant experience with programming. Still, I believe this program and completing side projects will make me more confident in programming languages like SQL, Python, and Tableau. My soft skills like communication, critical thinking, interpersonal, and problem-solving skills have been practiced during my previous work experiences in customer service and my internship.

C. Identify a potential career goal in your career plan based on your strengths and academic/MSDA track interests.

Before pursuing any MSDA track, I must gain experience and confidence in programming languages and data handling. I plan to do so throughout my time spent in the MSDA program.

I can create a portfolio once I have developed a broad understanding of computer, programming, and data skills. The portfolio will include beginner data analytics projects

completed during my free time. It will also demonstrate the skills I have developed in each class of the MSDA through projects completed there.

After demonstrating a good understanding of these essential skills and competencies, I can network and send my resume and applications for an internship or entry-level data analytics job.

I will remain in this position until I feel confident in my skills. I can start to pursue a new or higher position. I will look for entry-level data science jobs and financial analytics or operations research analytics positions. Beyond that, I can choose to specialize in that field or continue to explore the tracks for which I am eligible.

1. **Reflect on your career strengths as identified in your personalized CliftonStrengths assessment results.**

After taking the CliftonStrengths assessment, I realized that my strengths lie in being strategic, futuristic, input, competitive, and achieving. These skills can benefit working with data, regardless of the field and concentration. Out of all my skills, strategy and input will help most when handling data. Such skills will allow me to think critically about numbers, relationships, and other problems I may be expected to solve. Through the need to achieve, I will put forth the best effort to ensure that my work is the best I can do.

D. Acknowledge sources, using in-text citations and references, for content that is quoted, paraphrased, or summarized.

ProjectPro. (2024, March 8). *Data Science compared with different analytics discipline*s. Iconiq Inc. https://www.projectpro.io/article/data-science-compared-with-different-analytics-disciplines/175

U.S. Bureau of Labor Statistics. (2023, September 6). *Data scientists: Occupational outlook handbook*. U.S. Bureau of Labor Statistics. https://www.bls.gov/ooh/math/data-scientists.htm

Western Governors University. (2020). *Career Choices. https://apps.cgp-oex.wgu.edu/wgulearning/course/course-v1:WGUx+OEX0342+v01/block-v1:WGUx+OEX0342+v01+type@sequential+block@6350a559a9f149baa0e622e0ae9f2fe8/block-v1:WGUx+OEX0342+v01+type@vertical+block@65f3cd8045a84e26ba7a80e9a86012ca*