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LFN1 Career Plan

A. Career Plan

A1. Roles or Careers in Data Analytics

Data Analyst

A data analyst is responsible for collecting, processing, and interpreting data to identify trends and provide insights. They use statistical techniques and data visualization tools to communicate findings (Provost & Fawcett, 2013).

Data Engineer

A data engineer designs, builds, and maintains data pipelines and infrastructure to ensure data is accessible and reliable for analysis (Sadik & Gruenwald, 2012).

Business Intelligence (BI) Analyst

A BI analyst focuses on leveraging data to support business decision-making through dashboards, reports, and data visualization tools (Eckerson, 2010).

A1a. Differences Between Roles or Careers

Data Analyst vs. Data Engineer

Data analysts focus on analyzing data to derive insights, while data engineers focus on building and maintaining the infrastructure that makes data accessible (Provost & Fawcett, 2013; Sadik & Gruenwald, 2012).

Data Analyst vs. BI Analyst

While both roles involve data visualization, BI analysts work closely with business stakeholders to provide strategic insights through reporting tools, whereas data analysts provide more direct data analysis (Eckerson, 2010).

Data Engineer vs. BI Analyst

Data engineers focus on the technical aspects of data infrastructure, whereas BI analysts focus on translating data into actionable business information (Sadik & Gruenwald, 2012; Eckerson, 2010).

A2. How Roles Support the Data Analytics Life Cycle

Data Analyst

Supports the data analytics life cycle by gathering, cleaning, and analyzing data to generate insights. They ensure that data is well-prepared and structured for further processing and reporting. In the cycle, they primarily contribute to data collection, processing, and interpretation (Provost & Fawcett, 2013).

Data Engineer

Enhances the cycle by designing and maintaining robust data pipelines, ensuring that data is readily available and reliable for analysis. They manage ETL processes, integrate data from multiple sources, and optimize database performance for accessibility. Their role is crucial in data ingestion and storage (Sadik & Gruenwald, 2012).

BI Analyst

Completes the data analytics life cycle by transforming raw data into meaningful business intelligence through dashboards, reports, and presentations. They bridge the gap between technical insights and business decision-making, ensuring that data-driven conclusions inform company strategies (Eckerson, 2010).

B. Comparison of Data Analytics Disciplines

B1. Three Data Analytics Disciplines (ProjectPro)

Descriptive Analytics

Focuses on summarizing historical data to understand past trends (ProjectPro, n.d.).

Predictive Analytics

Uses statistical models and machine learning to forecast future outcomes (ProjectPro, n.d.).

Prescriptive Analytics

Provides recommendations for decision-making based on data-driven insights (ProjectPro, n.d.).

B2. Three Career Types (BLS Data)

Market Research Analyst

Uses descriptive analytics to assess consumer trends (Bureau of Labor Statistics, 2023a).

Database Administrator and Architect

Applies predictive analytics to optimize data infrastructure (Bureau of Labor Statistics, 2023d).

Business Intelligence Analyst

Applies prescriptive analytics to provide business solutions (Bureau of Labor Statistics, 2023e).

B3. Academic Skills and Needs

- Mathematics & Statistics: Essential for all three roles to analyze and interpret data.
- Programming (Python, SQL, R): Required for data manipulation and modeling.
- Business & Communication Skills: Important for translating data insights into actionable recommendations.
- Data Engineering Specific Skills: Knowledge of data warehousing, ETL processes, and cloud computing.

C. Career Goal

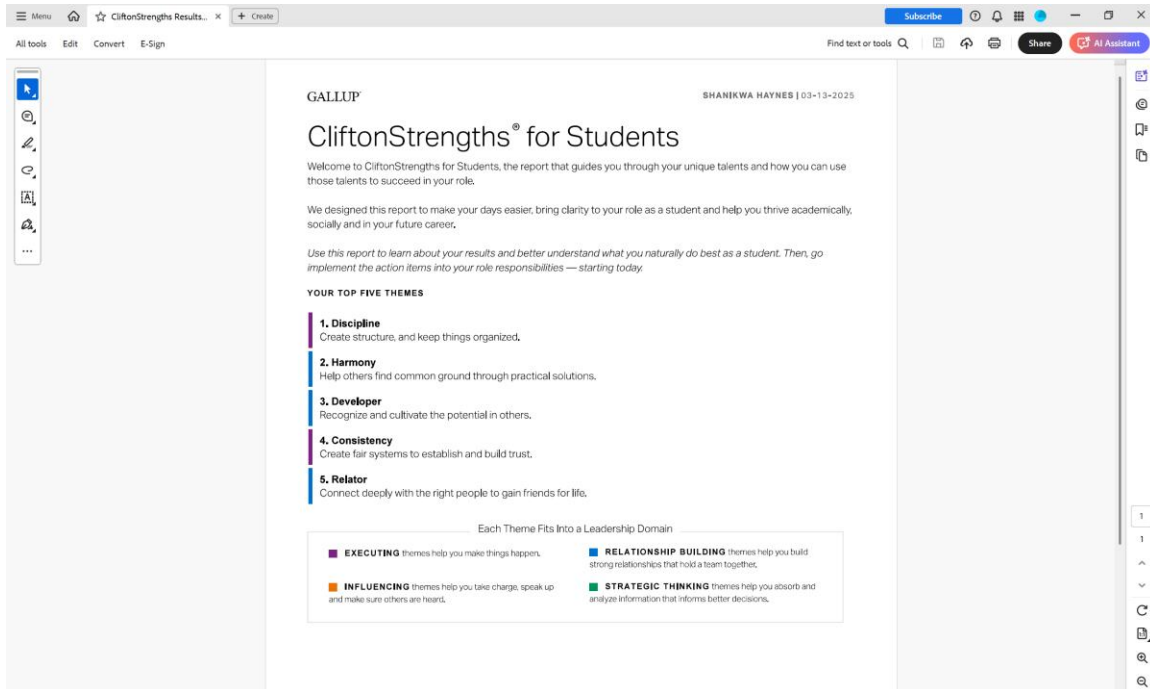
C1. Identified Career Goal

I aim to become a Data Analyst, leveraging my strengths in structured problem-solving and data-driven decision-making. My goal is to work in a role where I can analyze complex data sets to provide valuable insights that drive business decisions. This aligns with my MSDA track and career aspirations in analytics, ensuring a structured and growth-oriented path.

C2. CliftonStrengths Reflection

My CliftonStrengths assessment highlights Discipline, Harmony, Developer, Consistency, and Relator as key traits (Gallup, n.d.). These strengths align with my goal to become a Data Analyst by enhancing my ability to derive insights, maintain accuracy, and systematically approach problem-solving.

To provide evidence of my CliftonStrengths assessment, I have attached my personalized assessment report that outlines my top five strengths and how they relate to my career aspirations (Gallup, n.d.). These strengths help me work efficiently with data, collaborate with stakeholders, and maintain consistency in delivering accurate analytics.



D. Sources

- Bureau of Labor Statistics. (2023a). Market research analysts. U.S. Department of Labor.
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