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| Syracuse University ISchool |
| MS ADS Final Portfolio |
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Contents

[Introduction 3](#_Toc134912212)

[1. Collect, store, and access data by identifying and leveraging applicable technologies. 4](#_Toc134912213)

[2. Create actionable insight across a range of contexts (e.g. societal, business, political), using data and the full data science life cycle 5](#_Toc134912214)

[3. Apply visualization and predictive models to help generate actionable insight 6](#_Toc134912215)

[4. Use programming languages such as R and Python to support the generation of actionable insight 7](#_Toc134912216)

[5. Communicate insights gained via visualization and analytics to abroad range of audiences (including project sponsors and technical team leads 8](#_Toc134912217)

[6. Apply ethics in the development, use and evaluation of data and predictive models (e.g., fairness, bias, transparency, privacy) 9](#_Toc134912218)

[References 10](#_Toc134912219)

# Introduction

To communicate my professional skills gained throughout the course I will demonstrate through a series of projects varying components of the program. that have contributed to the development of my professional skills. When I began the program about 2 years ago, I had begun to just become exposed.

to many elements of data-science. I had only about a year of formal experience designing data entry systems in excel for the non-profit sector, but I was.

incredibly curious and eager to expand my data-skill set to a wide variety of methods and contexts. Through the beginning of my undergraduate career

and until the present day, I have been pursuing my researching capabilities. This passion for science and proofing was what originally drew me to the medical field,

However, in gaining experience in human services, I realize that the field itself needed data culture to have a chance at providing. accurate and reliable studies that can stand the test of time. It became increasingly evident to me leading up to and during the program how. important that aspects beyond performing research (such as dissemination, accessibility, and reception) are. What I've ultimately gathered from a course is that a good data scientist is learned on a wide variety of methods and can effectively communicate the implications of their use to the intended audience of their insights.

# 1. Collect, store, and access data by identifying and leveraging applicable technologies.

The management of data is an essential art required for providing business value to an enterprise. We are unable to truly deploy effective machine learning, optimization, or other complex methods without proper control and understanding of the data sources that feed their models. Despite many enterprises possessing different needs at different stages of developing a data informed culture, effective management and storage strategies are a key part of any data-scientists toolbox. It may be that your company has a well-defined business warehouse but is looking to store additional data from outside sources to provide more insight. That may require an analyst to design a system that can hold the information needed to answer the questions of the stakeholders. On the other hand, it may be that a company is still working through a mass of excel data sheets, and in need of a simple database for end users to collaborate effectively in. The manifestation of collection, storage, and access are all dependent on the use case at hand, which may call for different approaches from one analytical team to the next. However, one of the most important common elements that any business needs to consider when making data-based decisions are the governing policies that a company uses to standardize their interactions and responsibilities related to data.

1.a. IST 615 Cloud Management Final Project

This class involved experience and exposure to modern cloud solution providers like Microsoft Azure, and Amazon S3, however there was an emphasis on apply the usage of these technologies to a business scenario. In addition, current events were examined with respect to the current topic that further drew a real-world connection for me between the cloud management concepts and their best applications in the real world. I had the fortune of having some real-world crossover at the time of this project, as my place of employment INFICON was in the early stages of developing a cloud migration strategy. The final project of this course utilized cloud migration tools and TCO estimators to model a solution for migrating the on-premises hosted SAP ERP business warehouse to the SAP S/4 HANA cloud platform.

# 2. Create actionable insight across a range of contexts (e.g. societal, business, political), using data and the full data science life cycle

IST 707 Final Project

# 3. Apply visualization and predictive models to help generate actionable insight

IST 707 Homework 5

# 4. Use programming languages such as R and Python to support the generation of actionable insight

IST 652 Final Project

# 5. Communicate insights gained via visualization and analytics to abroad range of audiences (including project sponsors and technical team leads

IST 719 Information Visualization Final Project

# 6. Apply ethics in the development, use and evaluation of data and predictive models (e.g., fairness, bias, transparency, privacy)

IST 623 Information Security Final Project

# References