



# **ICTSS00120 - Artificial Intelligence Skill Set**

## **Session 6: Evaluating Machine Learning Opportunities**

Lecturer: Jordan Hill

## Learning Objectives

- Identify and document machine learning opportunities in various domains.
- Evaluate the advantages and disadvantages of AI, ML, and DL technologies.
- Apply industry-recognized ML principles and techniques to real-world scenarios.
- Discuss datasets useful for automating work tasks.

## Identifying ML Opportunities

- Understand the business context and goals.
- Identify tasks that can benefit from automation.
- Explore potential data sources and requirements.

### Key Questions:

- What processes are repetitive and data-intensive?
- What business outcomes could be improved through automation?

## Documenting ML Opportunities

- Clearly outline the benefits of automating tasks.
- Consider both short and long-term impacts.
- Align opportunities with organizational objectives.

### Discussion:

- How would automating this process impact workflows?
- What are the measurable benefits?

# Evaluating AI, ML, and DL

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| <ul style="list-style-type: none"><li>• <b>Advantages</b> (e.g.):<ul style="list-style-type: none"><li>• Increased efficiency</li><li>• Enhanced decision-making</li><li>• Cost reduction</li><li>• More accurate</li><li>• Data Efficient</li></ul></li></ul> | <ul style="list-style-type: none"><li>• <b>Disadvantages</b> (e.g.):<ul style="list-style-type: none"><li>• Implementation complexity</li><li>• Potential bias</li><li>• Ethical considerations</li><li>• Data hungry</li><li>• Resource intensive</li></ul></li></ul> |
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## Industry-Recognized ML Principles

- **Data-driven Decision Making :**
  - Use data to drive model creation and evaluation.
- **Transparency and Accountability :**
  - Maintain clear audit trails and model interpretability.
- **Continuous Monitoring and Updating :**
  - Regularly update models to ensure relevance.

## In-Class Activity: Group Peer-Review

1. With the person next to you.
2. Share the problem you have identified. (Part 1 of assessment 1.)
3. Discuss potential datasets that might exist and identify possible target attributes.
4. What challenges might present themselves in obtaining data?

## Next Steps

- Work on completing Tasks 2, 3, and 4 for Assessment 1 in class.
- Prepare to present findings in Week 7.



# Questions & Answers

