

Module 6: Machine Learning Pipeline



Overview

In Module 6 we initially describe the tasks of the Machine Learning Pipeline. Then we focus on the importance of feature extraction. We describe the tools used to build a train an ML model. We then explain the building block and mechanism behind building this activity. Finally, we perform feature extraction and build and train a machine learning model on data being used in the previous modules.



Objectives

Upon completion of this module, students will be able to:

1. Define the tasks of the Machine Learning Pipeline
2. Describe the Machine Learning Process
3. Define the process of feature extraction
4. Identify the importance of feature extraction
5. Explain the mechanism of building and training an ML model
6. Synthesize solutions on ML pipeline focusing on feature extraction and ML model training



Readings

No readings



Watch (30 minutes)

- [Lecture 6 Video \(https://canvas.vt.edu/media_objects_iframe/m-6dF7MPe4WtLuGhopessFmX5MwJKNAjQ6?type=video?type=video\)](https://canvas.vt.edu/media_objects_iframe/m-6dF7MPe4WtLuGhopessFmX5MwJKNAjQ6?type=video?type=video)

- [Lecture 6 Slides \(https://canvas.vt.edu/courses/176740/files/28995313?wrap=1\)](https://canvas.vt.edu/courses/176740/files/28995313?wrap=1)



Assignment (Lab and Homework) (1 hour)

- [Assignment 3 \(https://canvas.vt.edu/courses/176740/assignments/1816312\)](https://canvas.vt.edu/courses/176740/assignments/1816312)



Project Milestone



Continue working on your Project Milestone

[Project Milestone \(https://canvas.vt.edu/courses/176740/assignments/1816316\)](https://canvas.vt.edu/courses/176740/assignments/1816316)



Recitation (1 hour)

The recording of the optional synchronous ZOOM session for this lecture will be linked here.

