



# **Loading Your Data into MLS**

# 1

## Loading Data from MAT Files (.mat)

### Understanding the MAT File Structure

- Inputs (Feature Data) Matrix
- Labels (Targets): Vector or Matrix

### Merging Inputs and Labels in a Single MAT File

- Structure of the Input Matrix (e.g., samples x features)
- Structure of the Label Vector (e.g., samples x 1)
- Example:  
data\_inputs\_labels.mat

## 2

### Loading Data from Text Files (.txt) & Excel Files (.xlsx)

1. Understanding the Column-Based Data Structure

2. Separating Inputs and Labels into Specific Columns

- Identifying Input Feature Columns (Column 1 to N)
- Identifying the Label Column (Column N+1)



# Preparing Your Data

# 3

## CHANNEL SELECTION

- Identifying Relevant Channels
- Importing and Selecting Specific Channels in MLS
- Optimizing Channel Selection for Analytical Goals

# 4

## Denoising and Filtering Techniques

- Understanding Noise and Artifacts in Data
- Introduction to Filter Design
- Robust Filter Design Capabilities in MLS
- Applying Filters to Clean and Preprocess Signals

### **Common Filter Examples:**

- Notch Filter: Remove power line noise.
- Butter, Cheby1&2, Ellip Filters for General Signal Conditioning



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