

# Video Data Characteristics

Spatial (Image)

Temporal (Sequence)

= Video



## High Dimensionality

Multiple frames per second



## Motion Patterns

Object & camera motion



## Temporal Redundancy

Similar consecutive frames



## Frame Rate

24-60 fps typical for video



## Resource Requirements

Massive storage & processing power



## Optimization Strategy

Can be decomposed into keyframes for efficient processing

## How Video is Composed

Frame 1  
Keyframe

Frame 2  
Delta

Frame 3  
Delta

Frame 4  
Keyframe

...

 **Key Concept:** Video = Sequence of frames where keyframes store complete information, and intermediate frames only store changes (deltas) from previous frames