

# What is Sequence Data?

Data points ordered by time, position, or logical sequence



Key Property: Order matters — shuffling changes meaning

## Dependencies

Temporal or spatial dependencies between elements

## Feature Types

Univariate (single) or multivariate (multiple features)

## Length

Fixed or variable across samples

## Structure

Sequential ordering preserves critical information

## Examples



### Stock Prices

\$100 → \$105 → \$103 → \$108 → \$110



### DNA Sequences

A → T → G → C → T → A

Time series of financial data with temporal dependencies

Nucleotide order determines genetic information

### Sentences

I → love → machine → learning

Word order conveys meaning and grammar

### Video Frames

Frame<sub>1</sub> → Frame<sub>2</sub> → Frame<sub>3</sub> → Frame<sub>4</sub>

Sequential visual data capturing motion over time