

Why Special Modeling Is Needed?

✗ Traditional ML

- Assumes **independence** between samples
- **No memory** of past events
- Feedforward networks **cannot capture** sequential patterns
- Ignores **temporal/spatial dependencies**
- Context from previous elements is **not utilized**

✓ Sequence Models

- Recognize **dependencies** between data points
- **Maintain memory** of historical information
- Designed to **capture sequential patterns**
- Model **temporal/spatial relationships**
- Use **context** to influence predictions



Key Insight

Memory of past events is crucial for accurate forecasting.
We need models that maintain and utilize historical information.