

## Information Sources

### User-side Signals

- Interaction History
- User Profiles
- Contextual Behavior

### Item-side Signals

- Item Content
- Metadata
- Categories

## Modeling Paradigms

### Point-based

MF  
NCF  
NeuMF  
⋮

### Sequence-based

GRU4Rec  
SASRec  
BERT4Rec  
⋮

### Graph-based

GCMC  
NGCF  
LightGCN  
⋮

### Distribution-based

PMF  
Multi-VAE  
DiffRec  
⋮

## Recommendation Outputs

- Rating Prediction  
(scalar score)
- Top-K Ranking  
(ordered item list)