BASIC TECHNOLOGY: A PATTERN RECOGNITION PARADIGM BASED ON HIDDEN MARKOV MODELS

Recognized Symbols: $P(S|\boldsymbol{O}) = \arg max|_{T} \prod_{i} P(W_t^i | (\vec{O}_t, \vec{O}_{t-1}, \ldots))$

Language Model: $P(W_t^i)$

Search Algorithms: $P(W_t^i | \boldsymbol{O}_t) = \dfrac{P(\boldsymbol{O}_t | W_t^i) P(W_t^i)}{P(\boldsymbol{O}_t)}$

Prediction

Pattern Matching: $[W_t^i, P(\vec{O}_t, \vec{O}_{t-1}, \ldots | W_t^i)]$

Signal Model: $P(\vec{O}_t | (W_{t-1}, W_t, W_{t+1}))$