

Candidate Elimination Example

Training Examples:

$\langle \text{Sunny, Warm, Normal, Strong, Warm, Same} \rangle \rightarrow \text{yes}$

$\langle \text{Sunny, Warm, High, Strong, Warm, Same} \rangle \rightarrow \text{yes}$

$\langle \text{Rainy, Cold, High, Strong, Warm, Change} \rangle \rightarrow \text{No}$

1. $S_0 = \langle \emptyset, \emptyset, \emptyset, \emptyset, \emptyset, \emptyset \rangle$

$G_0 = \langle ?, ?, ?, ?, ?, ? \rangle$

2. Training Ex #1: (+) example, inconsistent with S

$G_1 = \langle ?, ?, ?, ?, ?, ? \rangle$

$S_1 = \langle \text{S, W, N, S, W, S} \rangle$

3. Ex #2: (+) example, inconsistent with S

$G_2 = \langle ?, ?, ?, ?, ?, ? \rangle$

$S_2 = \langle \text{S, W, ?, S, W, S} \rangle$

↳ generalized

4. Ex #3: (-) example, inconsistent with G

$S_3 = \langle \text{S, W, ?, S, W, S} \rangle$

$G_3 = \langle \text{Sunny, ?, ?, ?, ?, ?} \rangle, \langle ?, \text{W, ?, ?, ?, ?} \rangle$

$\langle ?, ?, ?, ?, ?, \text{S} \rangle \rightarrow$ Alternative maximally general hypothesis

5. Ex #4: $\langle \text{S, W, H, S, C, C} \rangle \rightarrow (+)$

Inconsistent with S

$S_4 = \langle \text{S, W, ?, S, ?, ?} \rangle \rightarrow$ Son 2 si S_3 ile gelişiyor

$G_4 = \langle \text{S, ?, ?, ?, ?, ?} \rangle, \langle ?, \text{W, ?, ?, ?, ?} \rangle$

↳ $\langle ?, ?, ?, ?, ?, \text{S} \rangle$ yi alırdık sonunda C olduğu için (inconsistent)