

$$\min_{V(s)} \frac{1}{N} \sum_{i=1}^N (V(s) - Q(s, a_i))^2$$

$$\frac{1}{N} \sum_{i=1}^N (V(s) - Q(s, a_i)) = 0 \rightarrow$$

$$V(s) = \frac{1}{N} \sum_{i=1}^N Q(s, a_i)$$

$$N \rightarrow \infty$$

$$V(s) = \mathbb{E}_{a \sim p} [Q(s, a)]$$