

assignment12

March 19, 2021

$$\begin{aligned} & \sum_{u=t}^{T-1} \gamma^{u-t} \cdot (R_{u+1} + \gamma \cdot V(S_{u+1}) - V(s_u)) \\ &= \sum_{u=t}^{T-1} \gamma^{u-t} \cdot R_{u+1} + \sum_{u=t}^{T-1} \gamma^{u+1-t} V(S_{u+1}) - \sum_{u=t}^{T-1} \gamma^{u-t} V(s_u) \\ &= G_t + \sum_{v=t+1}^T \gamma^{v-t} V(S_v) - \sum_{u=t}^{T-1} \gamma^{u-t} V(s_u) \\ &= G_t - V(S_t) \end{aligned}$$

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