

## Q2: DAgger

### Numerical Results Summary

Environment	Expert	BC	DAgger (Final)	Improvement
Ant-v4	4681.89	4699.91	$4742.55 \pm 5.59$	+0.9%
HalfCheetah-v4	4034.80	4008.57	$4055.00 \pm 45.97$	+1.2%
Hopper-v4	3717.51	1227.66	$3717.14 \pm 10.78$	+202.8%
Walker2d-v4	5383.31	2629.40	$5284.83 \pm 73.11$	+101.0%

Table 1: Summary of DAgger results compared to Expert and BC baselines. DAgger values show mean  $\pm$  std across seeds. Improvement shows percentage change from BC baseline.

### Learning Curves

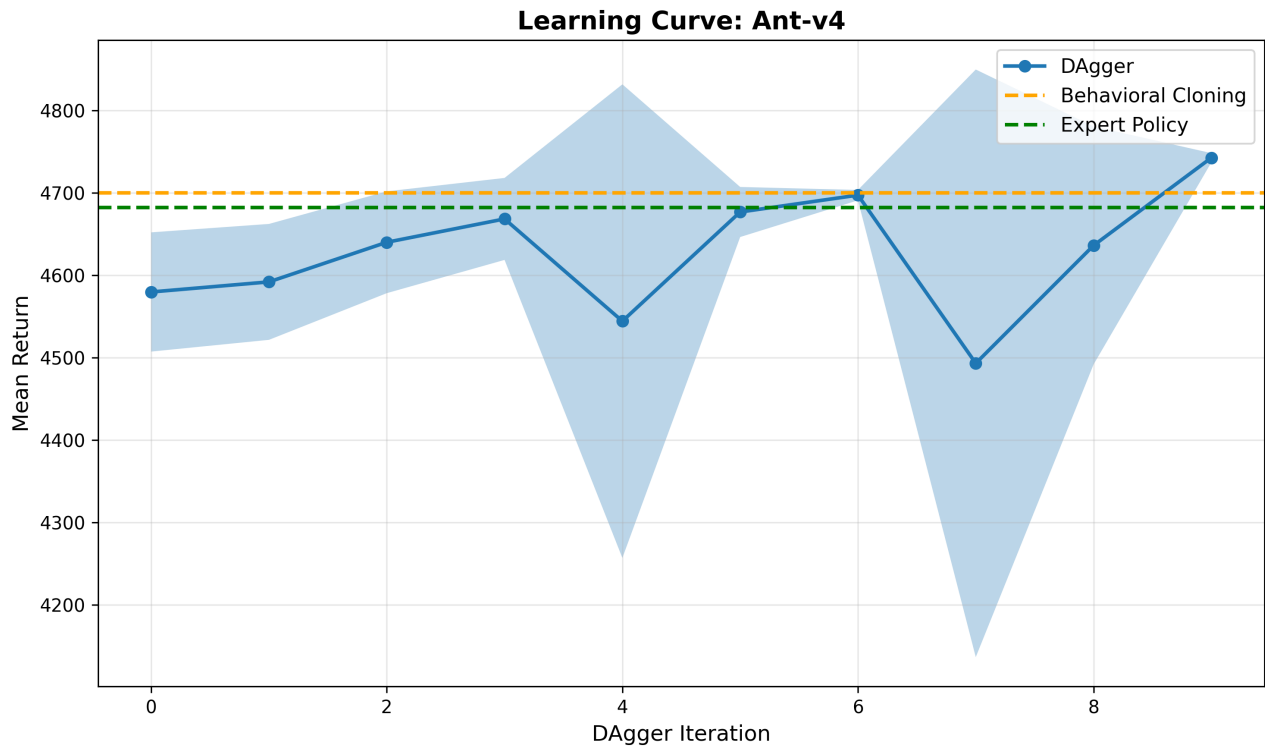


Figure 1: **DAgger Learning Curve for Ant-v4.** The plot shows mean return over 3 seeds with error bars (standard deviation). Network architecture: 2-layer MLP with 64 hidden units per layer. Training: 1000 gradient steps per iteration, batch size 1000. Final DAgger performance:  $4742.55 \pm 5.59$ . BC baseline: 4699.91. Expert performance: 4681.89.

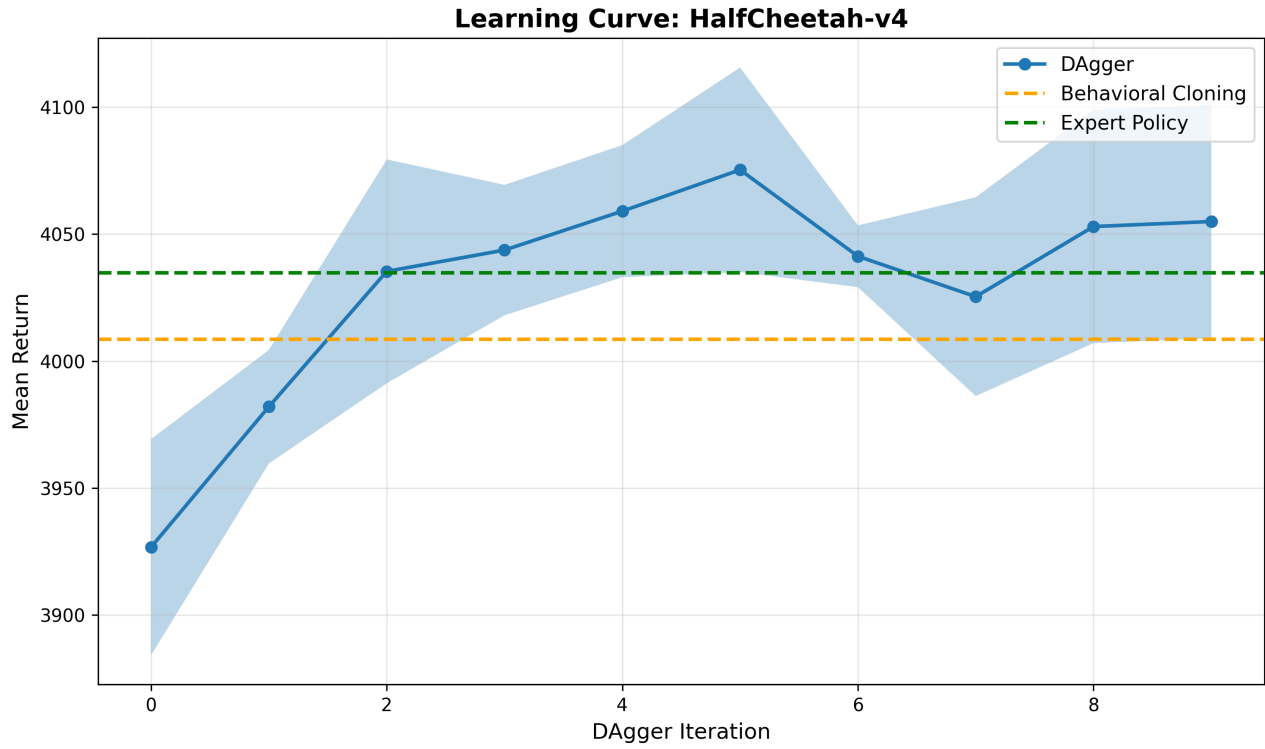


Figure 2: **DAgger Learning Curve for HalfCheetah-v4.** Final DAgger performance:  $4055.00 \pm 45.97$ . BC baseline: 4008.57. Expert performance: 4034.80.

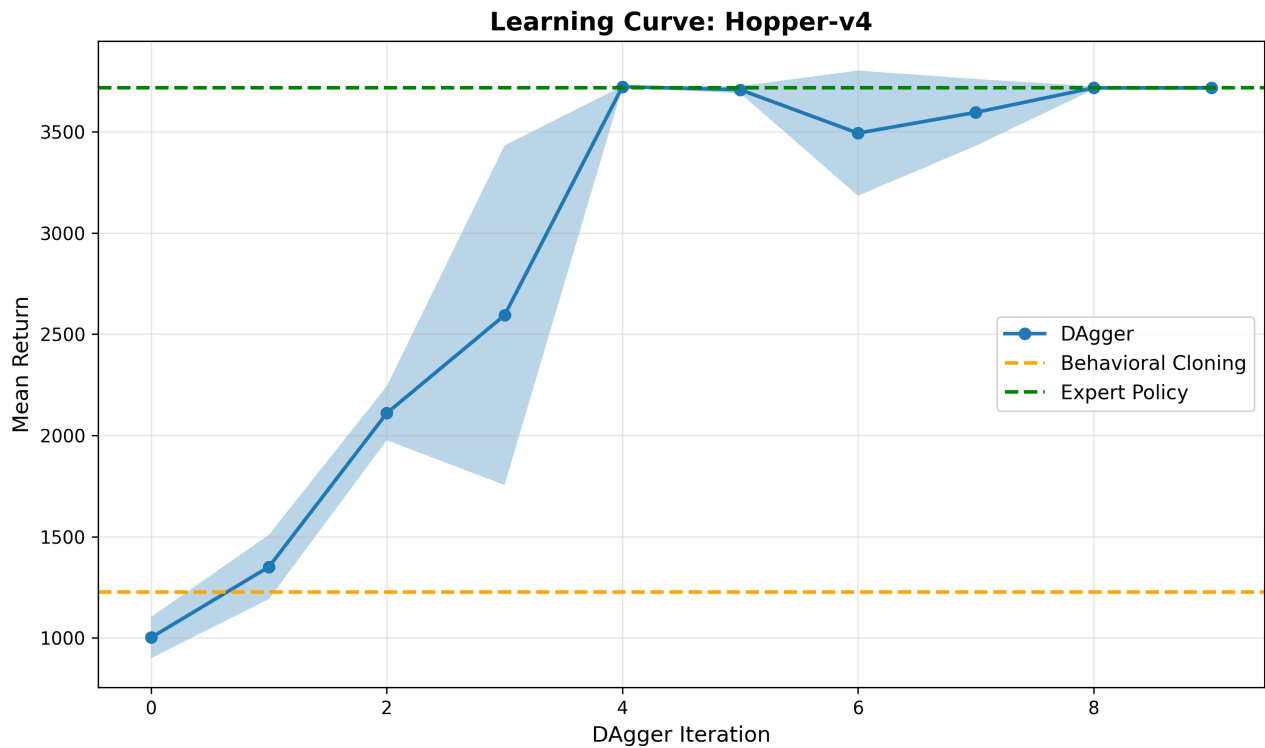


Figure 3: **DAgger Learning Curve for Hopper-v4.** Final DAgger performance:  $3717.14 \pm 10.78$ . BC baseline: 1227.66. Expert performance: 3717.51.

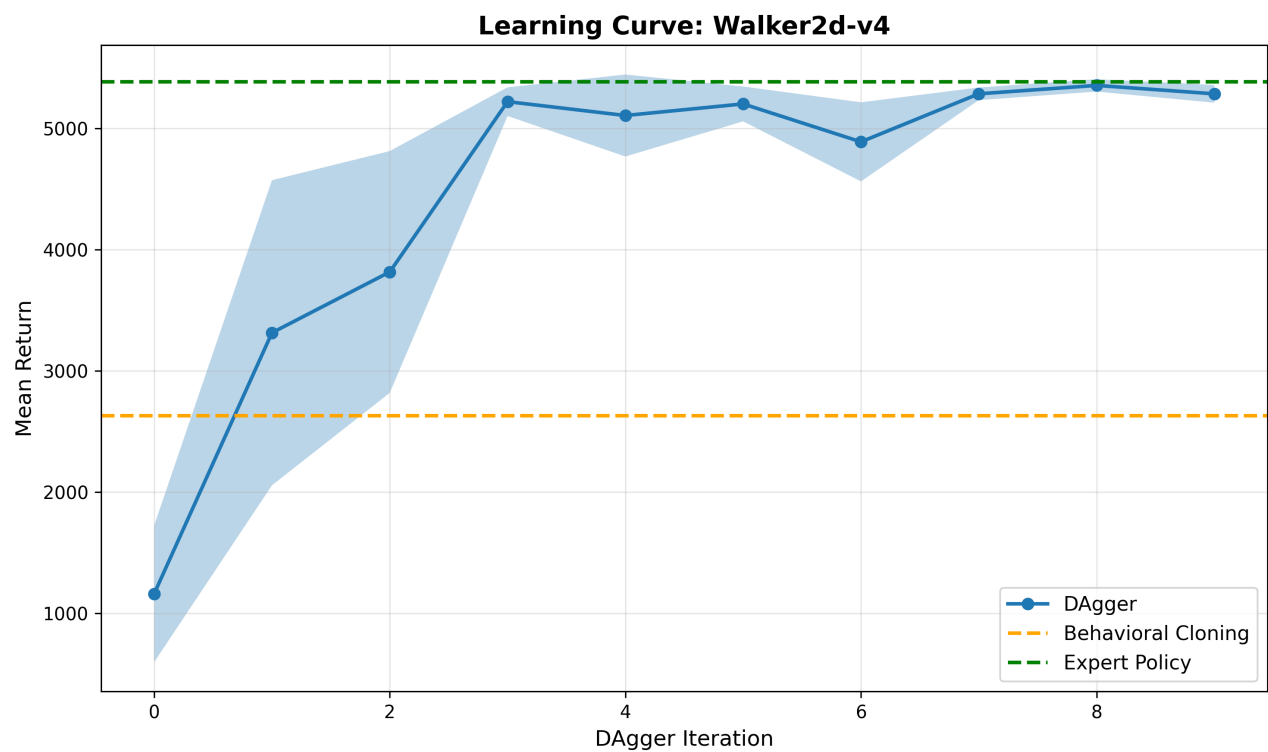


Figure 4: **DAgger Learning Curve for Walker2d-v4**. Final DAgger performance:  $5284.83 \pm 73.11$ . BC baseline: 2629.40. Expert performance: 5383.31.