

# PPO Market Bot

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## Fixed parameters

Discount factor  $\gamma = 0.99$

Learning rate  $\alpha = 3 \times 10^{-4}$

Generalized Advantage Estimation parameter  $\lambda = 0.95$

Policy clipping coefficient  $\epsilon = 0.2$



## Parameters

Episodes : 300

Epochs per update : 10

Batch size : 128



# Training 1 - Analysis



Figure 1: Training 1 - Training of trial 1



Figure 2: Training 1 - Test of trial 1



# Training 1 - Analysis



Figure 3: Training 1 - Training of trial 2



Figure 4: Training 1 - Test of trial 2



# Training 1 - Analysis



Figure 5: Training 1 - Training of trial 3



Figure 6: Training 1 - Test of trial 3



# Training 1 - Analysis

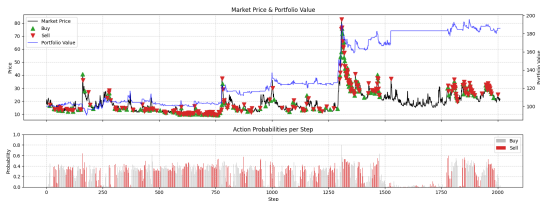


Figure 7: Training 1 - Training of trial 4

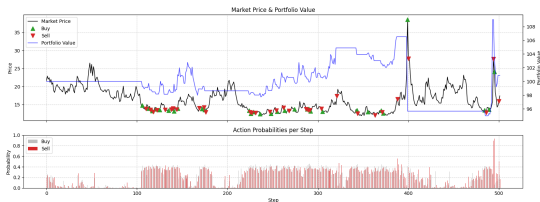


Figure 8: Training 1 - Test of trial 4



# Training 1 - Analysis



Figure 9: Training 1 - Training of trial 5



Figure 10: Training 1 - Test of trial 5





# Training 1 - Analysis

Trial	Training Profit	Testing Profit	Annual Return	Annual Volatility	Sharpe Ratio	Max Drawdown
1	-822.5	74	0.17\$/year	0.17	-0.07	-0.20
2	4.5	3	0.01\$/year	0.01	0.71	0.00
3	0	0	0.00\$/year	0.00	0	0.00
4	3930.5	0	0.13\$/year	0.13	0.10	-0.11
5	0	0	0.00\$/year	0.00	0	0.00

Figure 11: Summary of the trials performances



## Parameters

Episodes : 200

Epochs per update : 50

Batch size : 128



# Training 2 - Analysis



Figure 12: Training 2 - Training thru the epochs



# Training 2 - Analysis



Figure 13: Training 2 - Training of trial 1



Figure 14: Training 2 - Test of trial 1



Thank You

