Opening Range (ORB) Strategy Backtesting

I would like to run a backtest in python for a single stock symbol (QQQ - Nasdaq100 or the NQ).
I will provide you the historical 1 minute data in multiple files of 1 month data.
Need to backtest for one full year.

Option A - Opening Range Breakout

Conditions for the opening range market open at 9:30 AM EDT (New York sesion)

- Wait for minimum **price movement range of 0.30%** (market could be up or down, doesnt matter)
- Wait a minimum of **15 minutes**.(may take longer to reach 0.3%)

Only if BOTH of these conditions are met then go long or short based on breakout from this range.

Conditions for entry:

1.) price must retrace at least 0.010% from the long or short trigger points.

example :

- stock opens at 10.00, after 15 minutes price moves up to 10.30.....#1 this means the 0.30% criteria is met
- going short at 9.99 is valid because price had moved more than 0.10% away from 9.99....but going long at 10.31 is not yet valid.
- If the stock moves down to 10.20, now both the long at 10.31 or short at 9.99 are valid

2.) Wait for 1 minute price bar to close above (or below) the valid trigger, enter at open of next bar

OR

Enter immediately if price spikes more than 0.005% above (below) the valid trigger point

Profit Target = 0.50%

Stop Loss

- Use the opposite end of the opening range as the stop loss
  - MAX stop = 0.50%
- When stopping out then also **reverse** the trade at the stop
  - Add option (on/off) here to make the reversal trade **2X** the size of original trade

Break Even

- Move stop loss to B/E after the the stock moves 0.5%
  - ability to turn off the break even parameter

Max trades per day: = 2
No new trades after: 12:00 PM EST

***** All variables (in yellow) should be optimizable using something like backtesting.py or vectorbt. I want to control which combination of parameters I optimize

Option B - Opening Range Failure Scalp

- Use the same opening range as above
- Condition #1: Price to close above/below the range
- Condition #2: Stay above/below the range for 1 minute
  - But not more than 30 minutes
- Condition #3: Close back below/above the range
  OR pierce below/above the range limit by 0.005% (no closing below is required)
- **Profit Target:** 0.015%
- **Stop loss:** 0.005%
- If first play is a loser then look for second entry
  - But second entry profit target: 0.030%

Max trades per day: = 2

No new trades after: 12:00 PM EST

Visualization

- I want to see overall performance statistics (max drawdown, number of winners/losers, avg win/loss)
- I want to see all the dates where we lost money
- What tool / library will you use for visualization?
  options:
  https://vectorbt.pro/
  https://seaborn.pydata.org/examples/index.html
  https://www.machinelearningplus.com/plots/top-50-matplotlib-visualizations-the-master-plots-python
  https://plotly.com/python/

Platform

- What platform will you use? Jupyter etc …?
- Which libraries will you use? I need **specifics** not options

Can you give me your thoughts on the project?
Have you done anything similar before? how long will it take? Cost?
Any screen shots from past work?

Thanks,
Hamed Ali
mirhamedali@gmail.com