Find a FinTech problem that machine learning can help solve

Q1. Which of the following two strategies are more profitable / effective for a given crypto asset/stock?

1. EMA200v50 + MACD + RSI
2. EMA200v50 + RSI + BOLLINGER BAND
3. EMA200v50 + EMA20V10 + RSI

(Open to changing the strategies)

Q2. Pt. 2 - Do these strategies work across different crypto coins/stocks and how does the performance (profit) vary.

Q3. Would we invest in our own algo? Did we invest? What is the predicted outcome (profit)

Data sources:

- API's (Alpaca/Kraken)

ML modelling:

- Random forest

Notes:

Jupyter Notebook will be used to write and execute the code.

Indicators we can use

1. MACD
2. Bollinger Bands
3. RSI
4. EMA
    a. 20 vs 10
    b. 50 vs 200
5. Simple moving average vs exponential moving average

Scope of Research

- Asset class (Stocks vs crypto vs others?)
    - Which ones specifically?
        - Tesla / Apple / Nvidia
        - Cardano / Eth
- Time Frames / Candle size (i.e. daily vs hourly)
- EMAs: 20 vs 10, 200 vs 50 (death/golden crosses etc.)
- Data Sources:
    - Alpaca for stocks
    - Kraken for crypto (as backup if cryptos aren't on Alpaca)
- How to qualify bullish vs bearish macro trend