

6.S952 Project Abstract

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Adapting Parameters to Changing Market Regimes -

For every trading strategy, there are market regimes that are favorable and other regimes that are not. The idea is to periodically calibrate the optimal parameters of the existing trading strategies to adapt to rapidly changing market conditions.

The aim is to test this for simple technical indicator strategies such as the Bollinger Band(as mentioned in the blog), MACD, etc. I have access to market data (price and returns) but would need help in selecting appropriate features to model market conditions/environment.

I am still unsure if this task would require big computational resources for pre-training.

I am the only student in my group enrolled in 6.S952. I am a Masters of Finance student. I have done an introductory course in ML during my undergrad and am taking 6.C51, but I do not have research experience in machine learning-related tasks.

Reference:

<https://predictnow.ai/conditional-parameter-optimization-adapting-parameters-to-changing-market-regimes/>

Note: Before joining MIT as a Masters student, I worked for 2 years with a financial firm. And this is one of the problem statements I faced during my work as well - more particularly, how to tune parameters with regime shifts in the market.

I also have some experience with image processing and robotics and would be keen to work on ideas involving those topics as well. I chose the above topic because I do not have much idea about what kind of projects/problem statements people work on and are expected to work on.