

- Project: use Python to write an Index optimizer
 - Suppose we initially have a basket of \$10 million index underlying stocks, with equal weights
 - Index can be CSI 300 or SPX 500, depending on your data accessibility
 - Use Markowitz optimization to build a portfolio, maximize expected return and minimize risk
 - For risk calculation, you can either use Barra Data (if you have), or past daily data to calculate covariance matrix
 - Each components weight should deviate from index weight less than 3%
 - Turnover weight should be less than 15%
 - Carte blanche in terms of alpha. Some examples: trend following, reversal, flow etc. or simply random numbers
- Assessment criteria:
 - Hypothesis + Rationale
 - Clean code (welcome and encourage using any public libraries)
 - Back-test
 - Write up
- Submission:
 - commit to public GitHub link and email link to MLP