

Summer Internship Research Project

In this project, you are provided with daily close price of the following two stocks and their corresponding FX (2016 - 2019).

Ticker	Name	Currency	Country	Exchange
RIO AU Equity	RIO TINTO LTD	AUD	Australia	ASX
RIO LN Equity	RIO TINTO PLC	GBp*	Britain	London

*1 GBp = 1/100 GBP

Please come up with a trading strategy from the datasets. Please submit all your code in **python** (only python is accepted).

Please summarize your research in a simple report that covers the following topics:

1. How did you handle the data and construct your model? Please explain the rationale and assumption of your model / strategy.
2. How did you validate your model? Please attach outputs of all statistical tests involved;
3. Please specify the parameters in your strategy (if any) and explain how you determine their values.
4. Please show the simulated result and calculate key performance metrics (pnl, return, vol, sharpe ratio, drawdown, book size etc.)
5. What are the limitations of your model / strategy? What are the major risks?
6. How would you improve your model / strategy if you have more information? What additional datasets would you need?