

Resumes: Project/Story List

- Projects during studying in Master of Finance
 - **The selection of the the optimal portfolio and volatility index analysis (Excel Version)**
 - **Summary:** Select 10 stocks across different industries and 2 bonds to construct an efficient portfolio with the best weight of each component. (mean-variance analysis). Then analyze whether VIX (volatility index) could be used as a predictor of near-future volatility using statistic test.
 - **Result:**
 - Communication sector is the most stable industry with the lowest return and volatility, being used to lower risk, while technology information technology is the most profitable one, suitable for higher risk tolerance to pursue higher return. Using more stocks and low correlation stocks could effectively diversify the unsystematic risk of the investment.
 - Using Z-test and linear regression try to verify whether we can use VIX as an reference of future volatility, but it turned out that it's just sample deviation. VIX cannot be directly used as a predictor to near-future volatility.
 - **Python Version optimal portfolio**
 - **Comparison:** Much easier to construct as we didn't need to do it manually step by step, not mention updating prices change automatically is much easier to be implemented using Python than Excel. This time we focused on oil production industry.
 - **Result:** we didn't make much money from stocks, only 1% growth compared last week. Because the oil price were decreasing that month. But we made some money from bonds as the inflation push gov to increase interest for short-term bond and lower interest for long-term bond. And we made 1.5% growth from the decrease of the long-term bond interest.
 - **Learning:**
 - Using Python is more efficient method to automate and simplified the process. It would reduce the boring repetitive work and help us focus on the analysis.
 - Different industry's performance varies as they have different features. Those groups bought technology information made a large amount of money. No matter you bought ETF like SP500 or construct a portfolio, if you want to make money from the market, we cannot ignoring those big tech company like Tesla, Amazon, Meta, Apple.
 - **Machine learning based model to construct the high performing stocks in next 6 months**
 - **Summary:**

- EDA(Exploratory Data Analysis): using 'missingno' package in Python to clean data including removing high correlation data, filling up missing data using average per month and consistent formatting.
- rank stocks in terms of forward 6 month return per month and select the top 10% and bottom 10% named 1 and 0. Then, use these stocks combined with other financial ratios as our database.
- use random forest, XGBoost and logistic regression to carry on ML analysis and use these models in 12/5 moving window.
- it turned out that XGBoost model performed best with almost 0.8 accuracy scores.
- **Result:** Our model surpass the SP500. The price-to-sales (P/S) ratio and return on assets (ROA), consistently exhibit higher importance across model variations.

- **Accounts payable accountant intern**

- **supplier Invoice** and **employee reimbursement data entry** via **SAP** ERP system
- **bank reconciliations** and help EY auditing team verify records
- construct **Standard Operation Process and work flow** of my work in documents to save the time to train new employees
- collect and **clean tax data** using Excel as well as **Power Query**(fake it) and help visualizing data using **PowerBI**

- **ByteDance Training Intern**

- guest speaker coordination
- course video recording and editing
- maintain internal training website operation like launching new courses to the platform
- Arranged training data via Excel and optimized data processing models, resulting in a tailored Standard Operation Procedure to enhance the efficiency of data processing and save more than 1 hour of time for 3 team members.
- Led a project to design creative training content and brought other team member's superiority into full play, resulting in 2 excellent book sharing videos and becoming a regular part of the training platform.

- **Dyson Financial analyst**

- **variance analysis** on income statement, focused on the sales and expenses change of **air purifier**, which is the category I was in charge
 - **total sales is 14% lower than target, but 7% higher month on month.**
 - At the same time, marketing and advertising cost increased, especially on online channel.
 - a **trend** that the sales reduced at the beginning of the Covid but recover fast due to the boost of online channel. Also, the awareness of air cleaning due to Covid boosted the sales of air cleaner.
 - there is a COA data, but I forget and I try to find the notes I had before.

- collect data from Oracle and analyze them using MS Excel functions, VLOOKUP, and Pivot Table, skillfully visualizing data through Tableau and PowerPoint, resulting in Monthly Financial Reports
- Recognizing **an opportunity to enhance profits during the epidemic by emphasizing filter sales.** Although the sales of the air purifier was increasing in a row due to Covid, the filter sales didn't increase as expected. I recognized this potential inventory issue and discussed with my leader privately. After meeting up purchasing teams, she agreed with me and thought it was great time to do a promotion of filters and develop the customer habits. Then, after the discussion with the marketing team, they advertised the filters and made a promotion. Then, the profit from the filter grew 17% the next month.

- **Project assistant**

- **Coordinated with United Nations Development Programme to hold a youngster entrepreneurship competition.** Established and nurtured client and contestant relationships, promptly addressed inquiries, resolved issues, and ensured the smooth execution of multiple roadshows, contributing to the successful operation of the event. Also, making questionnaire and organize result data via Excel.
- Analyzed industry trends and initiated a new event proposal for a new project, teaching university students interviewing skills, which attracted over 500 participants with a 90% satisfaction rate; later expanded it to offer job referrals, job-hunting skills training, and generated around \$38,000 in profit(detailed description below:)
 - It's a project I proposed and was responsible for when I was working in Enactus China. I proactively take the project about teaching young university students to interview. I designed the process of the activity and invited some professional workers to share their experience. In addition, I also find some friends in different universities to advertise the activity. And I also play a role to teach these volunteers about how to do group interview. I learned a lot from this process. It turned out that we have more than 500 people participates this activity, and the satisfaction was more than 90%
 - In this case, I came up with an idea that we could keep this project and further develop this project to be a paid item as we already had so many people want to improve their job-hunting skills and find their first internship. We could make best use of these resources to make some profits.
 - I want to this project to become like we can offer students referrals to some companies they want as Enactus China has a lot of cooperation with other companies, and teach them some job-hunting skills as well. After communicating with my manager and other senior colleagues, they agree on me and can act as a mentor to teach students about job-hunting skills.
 - Finally, there were more than 50 people signed up this project, and we make profit around two hundred thousand yuan. This is only one project that I proposed and was responsible make a profit. This success really gave a great sense of accomplishment.

以上内容整理于 [幕布文档](#)