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| **Introduction** |  | |
| **Opening:**   1. How are you today?   2. Im very well, thanks for asking. I'm glad that we got this chance to talk   1. Thank you so much for taking the time to talk today. 2. Thank you, I really appreciate that you considered me for this role   **Interviewer talks abt their background/company**  1.I’ve heard great things about \_\_\_, *(I’ve done a lot of research already, and I’m excited to learn more about the company from you)*  **2. About myself:**  Well, I have around 5 years of relevant experience on data science or analytics role, Currently working for Wells Fargo Advisors at wealth management department, Previously, I was working at Wells Fargo Securities mainly supporting fixed income & derivatives trading desk.  My base carrier was at Bank of NY Mellon, worked as an automation tester specialized with python scripting and backend data validation.    In my current role, I'm a pretty much hybrid type of data scientist, I keep a track of data movement of around 500 applications while helping our Data Engineering team with the ETL development, I’m also part of Portfolio analytics team where we develop AI platform for Financial Advisors and portfolio managers for the various performance & risk measurements. And here I m looking for another opportunity to bring myself to the next level {**in the financial domain**}.  **Daily activities:** | |  |
| **Background Confirmation** | |  |
| 1. Project/Responsibilities/Team/  2. Models/Statistics/Formulas/Workflows  **Tips:**  **Examples**  **I hope this answers your question.** | |  |
| **My Questions** | |  |
| **Project & position:**   1. I would like to know little about the project and the work environment of this role? *( if it was told above)*   1. What does a typical day look like for a person {**in this position**} and what specific challenges are involved?  2. How do you {guys} describe the ideal candidate for this job?  3. As the final question, I would like to ask you if you have any comments or suggestions for me.  **Self Development:**   1. What professional development opportunities are available for this role in your organization? 2. What would you want to see me to accomplish in the first 3 month? 3. Do you {**guys**} have any comments about my qualification for this job; any concerns came to your mind? | |  |
| **Thank You** | |  |
| It was a great session; I’ve really enjoyed talking to you and learning more about this opportunity.   * Thank you for explaining the role to me in such depth. * Thank you {guys} for your time and consideration for this session. * Thanks again for taking the time to chat today! Have a great rest of your day. | |  |

**PMAR-** Performance Management & Analytical Reporting

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| **Description**: It is a portfolio analytics AI platform with the analytics reporting feature. It is a very compact 6 dimensional integrated system that supports:   1. Portfolio Performance & Risk evaluation 2. Modeling 3. Compliance GIPS( global investment performance standards) 4. Trading (recommendations) 5. Investment Book of records or Accounting 6. Reporting | | Main components:   1. **Risk & Analytics Engine** 2. **Recommendation Engine:** 3. **Reporting Architecture** 4. **RestAPIs** |
| **Data Flow& Analysis:**   1. Legacy Application databases 2. Data Warehouse ODS (returns) 3. Teradata(morning star) 4. Hadoop(reports for NLP & NLG) | **Problems**:   1. FAs may provide recommendation to the clients based on their experience/knowledge on smth, however, which may not be a valid for the given time. | **Solutions**   1. Our investor needs human-like, readable reports that he/she can easily relate to and quickly find important information. Thanks to another technology called the Natural Language Generation (NLG), the artificial intelligence can generate human-sounding reports and summaries. 2. The software uses NLP to filter out the information that is most relevant to the investor’s needs |
| **Supervised Learning**:  **Classification (K-Means)** : ~4000 models, the idea is to create a distinct group of models and assign those to the specified basked of models (Mano codes[product codes]). We utilized **K-means** clustering to categorize the investment models into certain groups. We around 33 different group of models labeled with mano codes.  **Risk Calculations (Regression)** The excess return is given by monthly return minus monthly T-Bills interest rate (let it be .0015).We find out the beta of all the excess returns of stocks by **regressing** (**OLS**) them individually against the excess return of the S&P index.  **Outlier Detection (Isolation Forest)**: We are developing system that autonomously detects anomalies in the risk measures of financial portfolios. For this we are utilizing Isolation Forest algorithm which highlights the anomalies. For example, it eliminates enormous negative outliers skewing portfolio performance.  **TextMining(Naïve Bayes)**:  <https://emerj.com/ai-sector-overviews/natural-language-processing-applications-in-finance-3-current-applications/>  **TextGeneration(RNN LSTM)**:  <https://www.ibm.com/blogs/watson/2016/06/natural-language-processing-transforming-financial-industry-2/>  <https://www.spglobal.com/marketintelligence/en/documents/sp-global-market-intelligence-nlp-primer-september-2018pdf> | **Recommendation(Apriory)**: We have developed a recommendation tool specifically for trading and account managers. For example, when trader tries to construct a portfolio, the system automatically recommends models & strategies with the best performance. On the other hand, When a client opens a new account the system automatically provides the top best products based on their expected return & balance  **TimeSeries**:  **Varios Quantitative Metrics:**  Standard Deviation,  Income, Gross, net, Currency, Volatility, Variance, Sharpe-Ratio, Betta, Calmar Ratio, M2, fixed income convexity | **Data Cleaning & Transformation** |
| Environment & Team: | Issues: |  |
| Tools: | Purpose of leaving: |  |
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