目标：有一个可以交出去的初形

做好这些工作需要具备的关键的能力有哪些

投资银行内审的位置

周日目标：准备好每一条写的是什么，以及面试内容

**A199058: Structured products WPB HBCN – New Product Approval and Remote Advised Sales Journey**

*M: Customer Education Not Always performed for Customers without knowledge and Experience Prior to Sales*

The WPB sales team has not implemented adequate controls to confirm the effectiveness of customer education by sales staff, when customers declare they have no knowledge and experience of structured products prior to sales.

Instead of providing customers the necessary product education, sales staff advised customers to re-visit their K&E. Customers later changed their answers on knowledge of structured products from “no” to “yes”.

**A198962: Wealth Management Investment Products Sales, WPB HBCN**

*M: Insufficient Customer Eligibility Checks for Private Fund(PF) Sales against Investors Existing Investment Profile*

WPB China Customer Value Management(CVM) team does not consistently verify customer eligibility for PF product sales. As a result, PF sales to potentially ineligible customers may not be detected.

MAP: system enhancement – enhance system controls for SFP(strategic financial planning) to auto-check the qualified investor proofs.

**A173530: Processes and controls audit of HSBC wealth and personal banking, wealth product management, sales and operations – Hong Kong**

M: Deficiencies in application of Global incentive framework(GIF)

Retail distribution does not always determine RMs’ performance ratings and calculate incentives in line with the GIF. Further, the documented rationale does not always justify incentives that exceed incentive pay parameters and performance ratings.

Specifically:

* 26 of 30(87%) sampled incentive payments didn’t have sufficient rationale for exceeding GIF payment parameters.
* Data analysis indicates 1518 of 4078(37%) staff incentives exceeded the pay parameters
* 18% RMs rated Top/Strong for their “Customer” KPI, had unperformed 3 out of 5 underlying KPIs. 37% RM rated as Good or Inconsistent achieving at least four of the five KPIs

Security dealing licenses

CPWP: 香港注册私人财富管理师

SLA: service level agreement

* Fuzzy matching analysis for loan company

Payment: payment sanction scanning(WOLF) comments, characters; L1&L2 comment the same

Comments with referenct to open source, white list, linkedin&facebook should not be used as data points

Credit card

Account

IRIS - Review key phases and tests in Regulatory Compliance Risk Assurance(RCRA) which is a second line of defense function and undertakes risk based on testing of the RC risk and control activities;

Review status

MAP example RCRA

自我介绍

面试官好，我是Jessica，再过去的5年时间里一直从事数据分析工作，很高兴今天来到贵司参加面试。

1. 知识储备，毕业的院校，学习的专业，证书资质，积累的知识，做过的项目，
2. 工作正相关
3. 正面突出自己的业绩，
4. 软实力，共同协调能力，团队协作能力

有例子做辅助

我先说一下我的教育和工作背景，我本科毕业于中央财经大学数理金融专业，然后在美国罗格斯大学读金融统计与风险管理，毕业后在普林斯顿一家marketing consulting公司做data analyst。工作三年之后回国加入汇丰，我现在在汇丰内部审计组做DA。在国内的时候读书期间有通过一些证券资格考试的科目，在美国考CFA，目前通过CFA3级和FRM1级。

第二点我看到这个职位是modeling，那我说一下做过的模型的经历，从本科开始有学习计量经济学的模型，研究生期间基本每个课程都有case study和projects，有探索过评分卡模型和各种数据挖掘模型线性非线性的模型比较。毕业之后的第一份工作中做过市场分割项目，帮客户去细分目标市场，主要是针对研究的特定市场的医生进行聚类和分类的研究，我们主要根据医生的资历，用药习惯，对新药的接受度分类领导型，拥护变革和传统保守型，我们客户根据我们分类的结果针对性的派销售代表。

来到汇丰之后我更多接触到的是银行内部的数据，接触数据的类型取决于审计项目的需要，比如wealth management的项目，我就去看关于理财产品，基金，保险的交易记录，用户填写的RPQ，销售人员的incentive数据。更多的是去帮助审计sampling和筛选exception，同时用Qlik Sense提供overview和KPI dashboard

第三点说一下

我的性格是很友善的，我的工作经常要跟别的部门合作沟通，比如了解清楚审计人员真正需要什么分析，要跟IT沟通这个field对应的是不是我们想拿的数据。有的项目可能需要我跟另一个DA一起去support，我们能合作的很好，大部分项目需要一个DA去做就可以，那我也能自己完成。

这些差不多就是我的一个介绍。

I’m Jessica. I have been working in data analysis for over 5 years. It’s my honor to have this interview./meet you.

First let me introduce my education and working background. I graduated from Central university of Finance and Economics for undergraduate in Beijing. Then I went to US and earned master degree in Financial Statistics and Risk Management of Rutgers University. During the school time in China, I passed several qualification examinations for securities practitioners. In US, I passed CFA level 3 and FRM level 1.

Secondly, I saw this position is related to modeling. So I’d like to tell my experience of modeling. Starting with graduate study, we have case studies and projects for each course. I’ve explored application scorecard study and data mining in credit data. In my first job, we research on physicians data, like their experiences, education, attitude to new products to divide them into 3 classes: leader, progressive, traditionalist. We use methods of clustering and classification. This helps our client send sales representatives to targeted physicians.

After joining HSBC, I’m exposed to more financial data. It depends the audit projects I support. For example, if I support a wealth management audit, I’ll extract transactions of related products, unit trust, insurance, structured products, customers’ RPQ and RM’s incentives data. To provide overview of the market and extract exception and help sampling.

Thirdly, I’m a detail-oriented person. I deal with variables, data structures all the time. I was trained to focus every detail about any analysis. Also, my personality is friendly. (I don’t involve too much emotion into work. ) Most of works involve working with other teams. I need to understand what kind of analyses auditors need. I communicated a lot with IT to make sure I extract the right fields of datasets. If the projects need two DA support, I work well with another one. Most of the time, it only needs one and I’m able to support from beginning to the end.

That’s pretty much about myself

关于加班怎么看

1. 表明自己对工作认真负责，效率高，抗压能力好

我会在工作时间之内高效的完成自己的工作，可能用一些工具和沟通方式去提高自己的工作效率，尽量不把应该在工作时间内完成的工作拖到下班之后去完成

公司会有临时的紧急任务和一些非常重要的项目，在这种情况下，我非常愿意以公司的目标和任务为重，在一定程度上和需要的时候，我是可以接受加班的。

First I make sure I work efficiently during the working hours. And try to use tools and communication skills to improve efficiency. I don’t want to work late because I’m not working hard enough in working hours. I understand I need to spend more time on this work since I’m a new joiner and there may be some urgent tasks and important ddl needed to be fulfilled. I’m willing to put the work as a high priority and work late.

1. 用简单事例证明

曾经我在xx工作的时候，客户需要一个紧急的方案，调研组在临下班的时候跟我们去沟通，这个项目非常紧急，因此当天临下班我就跟其他部门去协调

现在我们有很多项目是跟英国那边合作和讨论，因为时差的关系，我们下午5点才有机会和他们开始会议，所以必可避免要延迟下班时间

In my current position, we have a lot of projects working with colleagues in UK, Usually there’s not enough overlap working time. It’s hard to find a slot in calendar for all of members. I have to work late to have meeting and that’s totally acceptable.

1. 说清能够接受的边界

当然我注重家庭和工作的平衡，如果能在工作时间完成的工作或者临时紧急加班我可以接受，如果是长期的996对我来说比较勉强

I value work and life balance and I like culture in hsbc. I accept working late to provide urgent work and necessary meetings. But if it needs me to work from 9am to 9pm for 6 days a week. That’s a little hard to take.

1. 探听对方加班强度

顺便问一下贵公司的加班强度是什么样的，我也希望HR能如实告诉我，这样的话我们彼此都了解一下情况，会更负责人一点

By the way, what’s the working hours for this position usually?

想要换工作的原因

我现在position的定位是embedded DA，我的工作一半由RC FM安排，一半由GAA EM安排，我一直是主要负责数据支持的工作，去年开始RC部门陆续有人离职，一直没有招人，那FM希望今年开始我开始做audit的工作。那他需要我去做审计工作，我也完全理解并且也努力在做，但我其实更希望自己做分析和模型工作。我听到modeling在招人，非常感兴趣想试一试。

When I joined the bank, my position is embedded DA in RC. Half time support RC DA and half time support other audits from GAA. I mainly focus on data support. Since last year, people in RC team is leaving, and we don’t have enough new joiners. My FM wants me to start to be involved in audit process work. I totally understand and I sort of already know the process of auditing. However, I actually still want to develop my skills in analysis and modelling. When I heard this team is recruiting, I’m very interested and would like to give a shot.

**What do you see yourself in 2-5 years**

因为我毕竟没有在银行里面做过模型，我希望开始的时候我能快速掌握工作需要的技能，2-3年内改进自己可以提升的地方，熟悉已经有的资料，了解部门的架构，去更好的工作和contribute。

3年之后我希望自己能成为key member能跟其他需要的部门去更好的沟通。比如我刚开始做需要的一些部门已有的东西我不知道放在哪里，3年之后我会比较清楚曾经用到过什么去完成，哪些是需要进一步确认的，我也希望我的拓展我的技能，承担更多责任和挑战，提供更多帮助给其他同事和部门。

In the first 2-3 years, I see myself becoming a (true) experienced staff and master at my role as a modeling manager(job title) at (company name). I plan to immerse myself in the position, understand areas that I can improve on, really get to know the ins and outs of the business and look for opportunities to make the team and department as efficient as possible.

For the 2-3 years after that, I see myself as an expert being a key member and liaison to all the relevant teams in the organization. I want to be able to extend my expertise, take more responsibility and challenges and offer help to other members (and other departments). I would expect to have been successful in this position to the point that I’m able to impact (contribute my work and ideas to the) department decisions.

**问问题**

Junior

Day to day work life是怎么样的

平时的工作方式是怎么样，是每个人习惯做自己的事，还是团队协作的东西比较多

有哪些额外的技能是你希望我有的可以更好胜任这个职位的吗

Senior

High-level: 跟行业发展，未来前景相关的问题

这个团队在整个公司里面，在这个架构里面是什么位置

他平时会跟那些团队协作比较多，他的功能是什么

I know this is a second line position in the bank. What’s our role in the second line. Which department do you liaison(collaborate/communicate) with most. (Do you need to talk with regulations?)

What additional skills or experience do you wish I had that would make me a better fit for this job?

关于面试官本人

他的经历，他是怎么一步步走到这个位置的

如果有相似的经历或者能插上话的，那就能更深入的聊一聊了

比如你在investment club对做这个工作有什么更好的帮助，我现在有这个经历能不能更好的帮助我适应这个工作

Networking

1. 活动本身相关的：你为什么要参加这个活动

项目介绍

评分卡模型

数据挖掘模型

工作介绍

第一份工作

INA工作

Wealth management

1. We check customers’ RPQ level with the product risk level they bought. They should not buy products with higher risk.
2. For potential vulnerable customers, there are lists of products they are not allowed to buy. Providing exceptions and sampling are also our works.
3. We also check if one customer updates the RPQ and risk level notch up 3 levels within 3 days. Or if one choose NKNE and then change it with WKWE in the same day. That’s also unusual.
4. Some analysis includes both unit trust transactions and insurance. If any customer redeems unit trust and then buy insurance. And if that situation repeatedly occurs over one RM.

Payment

1. For companies with more than 200 thousand US $ under capital item, we need to check supporting documents and purpose of the payment

单一机构每月备用金（含资本金，外债等资本项目的意愿结汇和支付结汇）支付累计金额不得超过等值20万美金。

1. Payment to capital item should not be a cash inward payment

资本金账户和境内在投资专用账户的账户资金应以现汇汇入不得以现钞存入。

1. Extract payment transactions for customer with SPI (special instruction) [enhanced doc required]
2. Under trade service, to same beneficiary for repeated/similar transaction within 3 consecutive days/within 30 days

Balance of Payments Reporting (BoP Reporting) 境外汇款申请书

RC Requirement: For services in trade, it is prohibited to split the transaction in order to bypass the regulatory monitoring.

1. It is required to have special document checking process if transactions are from corporate to individual over CNY 50K

Account

1. List of customer with address unknown( both personal & non-personal
2. For below specific account (GB/CMB/RBB) with no transactions for consecutive 13 months, check the customer account loaded with SPI
3. For corporate customer, critical information change with high inherent risk including a represent personal information (eg: ID Type, ID number, ID expiry date)
4. CAT I/II/III account,
   1. CAT III balance higher than CNY 2k
   2. One signal individual customer has more than one RMB CAT I settlement account
5. Corporate RMB settlement account annual review（三年检）

Counter

1. SAFE requirement of individual customer’s daily foreign currency cash withdrawal quota check(USD 10K)
2. SAFE requirement of individual customer yearly foreign currency exchange quota check (USD 50K per calendar year)
3. SAFE requirement of FCY cash deposit or withdrawl of individual watchlist customer
4. SAFE requirement of nil cash withdrawl for some specific kinds of corporate accounts
5. 5个以上不同人同日隔日或连续多日分别购汇后，将外汇给一个人
6. Individual customers have ransactions with expired ID
7. PBOC requirement of no use of type II and type III account for foregin currency purchase or sale
8. SAFE requirement of bank internal control to prevent split transaction which bypass daily FCY purchase quota of OVC/FOC.HMT customer

1、什么是评分卡？

在银行借贷场景中，评分卡是一种以分数形式来衡量一个客户的信用风险大小的手段，一般来说，评分卡打出的分数越高，客户的信用越好，风险越小。

2、评分卡怎么使用？

对于需要借贷的个人或者公司，在借贷时需要填写一张表格，表格内容包括年龄，收入，家庭人口数量等等。评分卡将每个特征划分为几个区间，每个区间有一个分数。根据客户所填信息对照评分卡，为客户所填的每一个特征赋一个分数，最后相加计算这个用户的总得分。依据总得分评估他的信用程度。

3、怎么使用逻辑回归制作评分卡？

制作评分卡需要大量客户所填的信息（特征矩阵X），以及该客户是否违约的信息（标签Y）。

（1）对特征矩阵X进行数据预处理。包括去除重复值，填补缺失值（仅有极少数样本缺失该特征可考虑直接删除该特征，可使用均值填补家庭人数，随机森林填补收入等），处理异常值，处理样本不均衡问题（使用过采样和欠采样的方法），但是我们一般不对数据进行标准化处理（这是因为我们给出的评分卡是给业务人员看的，而客户所填信息天生就是量纲不统一的）。

（2）找出每个特征最佳分箱数和箱子边界。最佳分箱数就是使得该特征的IV值尽量在最佳IV值区间的箱子个数（尽量提高每个特征的重要性），并且使得该特征的箱内相似，箱间差异大。因此步骤是这样的：首先确定一个较大的分箱数，进行等频分箱，计算各箱WOE值和特征的IV值，然后依据卡方检验值合并相似箱子，再次计算各箱WOE值以及该特征IV值，直到箱子数量变为一个较小值。画出分箱数-IV值曲线，找出最佳分箱数和各箱边界。

（3）对各个特征依据最佳分箱边界进行分箱。分箱后得到特征的各箱边界以及WOE值。

（4）处理训练集和测试集的特征矩阵X。将特征矩阵中的值全部替换为对应箱子的WOE值。

（5）使用训练集进行建模，使用测试集计算模型得分，并且利用学习曲线调整正则化系数C和最大迭代次数max\_iter提高模型得分。

（6）制作评分卡。根据该公式的值计算出系数A和B的值，根据逻辑回归得到的截距lr.intercept\_、各特征系数lr\_coef\_。用base\_score = A - B\*lr.intercept\_公式计算该评分卡的基准值，用col\_score = woeall["i\_colName"] \* (-B\*lr.coef\_[0][i])计算各特征的分数列表（每个箱子对应一个分数），其中woeall["i\_colName"]是i特征的箱子边界列表和对应的WOE值列表。

4、为什么要使用逻辑回归制作评分卡？

评分卡制作其实就是将连续的特征离散化（分箱），且为每一个离散值赋一个分数（该箱的WOE值）。其中逻辑回归的截距用于计算评分卡基准值；逻辑回归系数表示各个特征在判别标签时的重要程度；各箱的woe值用于逻辑回归建模时代替特征矩阵X原始值带入计算。