

# 王宇

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## 教育背景

新泽西州立罗格斯大学, 美国新泽西州

专业: 金融统计与风险管理 理学硕士 GPA: 3.95/4.0 2016

• 相关课程: 回归分析, 统计推断, 多变量分析, 时间序列, 模拟方法, 投资组合和风险管理, 数据挖掘

中央财经大学, 中国北京

专业: 数理经济与数理金融 经济学学士学位 GPA: 3.56/4.0 2014

## 工作经验

汇丰银行(中国)有限公司, 中国广东省广州市

数据分析师, 内部审计组 - 数据分析组 2019.09 - 现在

财富管理, 产品销售和运营审计项目(香港, 恒生, 中国)[使用 Python, SAS, Excel]

- 财富管理客户画像: 客户分类, 风险承受等级(RPQ), 年龄, 国籍, 财务状况, 收入来源, 产品类型认知及交易经验, 投资偏好及目标; 产品销售额及类型, 产品风险等级, 交易渠道, 交易地区分布; 客户投诉数据, 销售员工销售额分布, 销售产品集中度;
- 分析单位信托基金, 结构性存款, 私募股权基金和保险交易; 存在的频繁交易, 潜在欺诈交易;
- 销售产品推荐和客户投资偏好匹配度检验;
- 客户经理业绩激励和销售的相关性分析(回归解释绩效奖金和销售额的关联度; 卡方检验总体业绩评级和直线经理评级/同组排名评级的相关性)

汇丰中国分支行审计分析报表(BAAT)[使用 Python, Qlik Sense, Ali Cloud]

- BAAT BI 可视化报表包括信用卡, 工商企业批发信贷, 柜台, 账户和付款等总体重要指标和图表信息; 提供数据钻取和探索功能, 可导出图表信息、抽样数据和异常记录;
- 报表生成流程: 连接 Oracle/Teradata/SQL Server 数据库, SQL 调取数据, Python 分析数据, 导出结果到数据库/Excel, Qlik Sense BI 导入/更新数据, 生成报表;
- 设置定时调度任务(包括加解密, 参数设置)使既有程序随数据更新每月自动生成分析结果;
- 中国数据由 Teradata 迁移到阿里云过程中, 领导阿里云工具的使用和分析代码程序迁移;
- 绘制可视化商业程序流程图, 自动运行数据分析流程图和组织架构图(使用 Visio)。

其他参与审计项目

- 聚类分析对特定范围客户进行分组(如信用卡持卡人), 提供审计人员数据进行针对性抽样;
- Celonis 流程挖掘(Process Mining) BI 报表: 全球告密系统;
- Qlik Sense BI 报表: 中国房贷审计, 操作风险/合规风险系统。

Strategic Research Insights, 美国新泽西州普林斯顿

数据分析经理, 数据分析组 2016.07 - 2019.05

市场分割项目

- 项目目标: 根据数据用主成分分析和聚类分析把医生分类成组领导者、革新主义者、传统派, 客户根据分类结果更有针对性地派销售代表和医生交流, 项目基于 150 个医生的一手数据和二手数据进行分析;
- 将医生进行分组后, 我们使用决策树模型提供算法, 算法根据市场 2 万个医生的数据和特点把他们分到已有的组里进行定位。为了提供互动式决策, 我用 VBA 把算法制作成可以直接点选特征出结果的工具。

市场追踪项目

- 对于同样一个市场, 项目不断跟进医生现在开每种药的份额和他们将来要给的市场份额, 提供随时间变化的历史数据, 做回归分析来探讨和预测市场份额和药的特性的关系。项目初期是每月进行一次调研, 目前份额稳定进展到按季度提供报告;
- 数据处理包括合并数据, 清洗数据和加权重; 数据报告来追踪关键指数如提交保险份, 申请通过率, 拒绝实例原因总结(使用 SPSS, SAS); 对于同一逻辑的相似分析通过写 Excel VBA 或 Macro 来提高效率;

## 研究项目

使用逻辑回归制作评分卡的研究(使用 Python)

2021

- 使用个人信贷数据制作申请评分卡, 包含数据预处理(缺失值, 异常值, 样本不均衡, 分训练集和测试集), 分箱(计算 WOE 和 IV, 确定分箱个数), 逻辑回归建模和模型验证, 制作评分卡

## 编程技能和认证

技能: 精通 Python, SQL, SAS, Excel(VBA), SPSS, R, Qlik Sense, Celonis

了解 Tableau, Power BI, Quick BI, Linux, Visio, Java

证书: 通过 CFA 3 级, 通过 FRM 1 级, 通过证券市场基础知识, 证券交易, 证券投资基金  
通过 SAS 基础和高级程序员认证

## Yu (Jessica) Wang

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### EDUCATION

#### Rutgers University, New Brunswick, New Jersey, U.S.A

Major: Financial Statistics and Risk Management Master of Science GPA: 3.95/4.0 2016

- Relevant courses: Regression Analysis, Methods of Statistical Inference, Multivariate Analysis, Time Series, Simulation Methods, Data Mining, Portfolio and Risk Management

#### Central University of Finance and Economics (CUFE), Beijing, China

Major: Mathematical Economics and Mathematical Finance Bachelor of Economics GPA: 3.56/4.0 2014

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### PROFESSIONAL EXPERIENCE

#### HSBC Bank (China) Company Limited, Guangzhou, Guangdong, China

Ast Analytics Audit Manager – Internal Audit, Global Regulatory Compliance & Data Analytics Team Sep 2019-Present  
Wealth management, product sales and operations audit project (HK, HASE, CN) [Using Python, SAS, Excel]

- Created wealth management customer persona: Customer type, Risk Profiling Questionnaire(RPQ), age, nationality, Source of Wealth, product knowledge and experience, tenor and capital protection preference; Product sales and type, product risk, customer complaints data; sales and product concentration for RMs.
- Built test scenarios and data analyses covering unit trust, structured products, private fund and insurance transactions; frequent trading and potential fraud trading;
- Test consistency of recommended products and customer's preference;
- Analyzed relationship between RMs' incentives and sales (regression analysis); Chi-squared test for relationship between overall performance and manager assessment/growth ranking)

China Branch Audit Analytics Tool (BAAT) [Using Python, Qlik Sense, Ali Cloud]

- BAAT BI dashboard covers audits of credit card, wholesale credit, wealth management, account, counter and payment to meet audit DA needs; It provides summary overview in audit scoping/planning phase and outputs for exceptions and sampling in fieldwork phase;
- Process of generating dashboard: connect to Oracle/ Teradata/SQL Server database, run SQL to extract data, use Python to analyze, output to excel/database, import data and refresh dashboard in Qlik sense;
- Schedule monthly job in Python to run analysis programs automatically, including encrypting and decrypting id/password to connect to database, refreshing parameters;
- Lead Ali Cloud Tool usage and analysis programs migration when datasets migrated from Teradata to Ali Cloud;
- Visualize business process flowcharts, data automation cross-function flowcharts and org charts (using Visio).

Other support in audit projects

- Global RC Investigation whistleblowing audit – Celonis process mining dashboard;
- China Home Mortgage Loan audit - Qlik Sense dashboard;
- Regulatory Compliance Risk Assurance(RCRA) - Qlik Sense dashboard.

#### Strategic Research Insights, Princeton, New Jersey, U.S.A.

Analysis Manager - Data Analytics Team

Jul 2016-May 2019

Segmentation study

- The objective of the study is to use PCA and clustering method to divide physicians into different groups such as leader, progressive, traditionalist. This helps our client send sales representatives to targeted physicians.
- After the segmentation, we provided an algorithm to classify physicians into labeled classes that are created in the first phase. This method can be applied into physicians in the whole market. To put the algorithm into practice, I built user friendly Excel tool by using VBA and Form Controls.

Monthly tracker study

- For a specific market, we tracked physicians' prescribing behavior, current usage and future usage. Over the years, we gave pretty good predictions through the primary research. With the stability of the new drug's market share. The monthly tracker study becomes quarterly reports.
- Techniques include merging different waves data, cleaning data and weighting. I built regression analysis to explore the relationship between market shares and performance of medicines' attributes.

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### RESEARCH PROJECTS

#### Study of Creating Application Scorecard using Logistic Regression (Using Python)

2021

- Developed a data-driven credit risk model to predict and assign credit scores to existing or potential borrowers.
- This includes preliminary data exploration (data cleaning, imbalanced datasets, splitting), Binning (WOE and IV calculation and number of bins decision), model training and scorecard development.

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### TECHNICAL AND OTHER SKILLS

**PROGRAMMING:** Python, SQL, R, Excel (VBA), Visio, SPSS, SAS, Qlik Sense, Tableau, Celonis, Java, Linux

**CERTIFICATIONS:** Passed CFA Level 3, Passed FRM Level 1, SAS Certified Base and Advanced Programmer for SAS 9