(Jason) Xiayan Wang

HIGHLIGHTS OF QUALIFICATIONS

- 12+ years' professional experience in banking with in-depth knowledge of financial risk model development and quantitative portfolio risk management
- Excellent technical skill in computational statistics on large scale data
- Outstanding programming in R (Shiny), Python (Notebook), Matlab and LaTeX
- Keen business consultant with effective communication skills and ability to explain technical matters to the business

Work Experience

2018 Mar – Present **Capital Analytics & Stress Testing**, *VP*, ERM, Credit Suisse International

ST Platform Designed and implemented an end-to-end stress testing platform from scratch

- Data import layer: sourcing data in various non-standardized structures/formats ranging from spreadsheets attached in emails to APIs, across teams from both Risk, Finance and Treasury; ranging from balance sheet, revenue projections to position level data dump of the trading inventory
- Back-end: cleaning, standardizing and restructuring the input data to consistent relationship/structure and storing in DB (SQLite)
- Execution: implemented stress testing models in Group proprietary libraries and redeveloped/improved models subject to UK and EU specific regulatory requirements
- Front-end: automated methodology documentation by R (Markdown) and Python (Notebook), and stress testing regulatory reporting by Workiva
- Front-end: developed interactive R Shiny web-app to visualize capital adequacy implied by stress testing, interactively perform what-if analysis for ad-hoc capital repayment, dividend and capital/financial/funding plan assumption tweaking, and drill-down to granular data identifying drivers with period-over-period comparison capacity

Delivery

- Developed management dashboard (R Shiny web-app) to visualize Capital, RWA, Basel Leverage and Liquidity (LCR & NSFR) metrics with capacities of *drill-down* (e.g., examining top drivers, historical trending) and *period-over-period* comparison.
- Supervising off-shore analytic team and transforming the team's Excel based skillset to R/Python working capacity

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Achievement
- Received "exceeding expectation" rating in every annual performance review

2015 May – 2017 Dec **Capital Analytics & Stress Testing**, *AD*, ERM, Royal Bank of Canada (UK)

Mandate
- Responsible for development and implementation of Stress Testing and Economic Capital methodologies for ICAAP
- Responsible for EC and Stress Testing embedding for executive risk committee reporting and risk management practices

Embedding
- Developed portfolio management tools to analyze portfolio dynamics and credit risk profile (e.g., stressed losses and credit EC metrics) for corporate and wealth lending portfolios. The tools are used in daily risk management and business analysis as well as risk reporting. The implementation was done using R (Shiny) with modern web technologies
- Set up automated data process to correct local portfolio credit data using multiple Risk and Finance data sources. Implemented the data process using R and SQL database.
- The data process has various applications such as utilizing Moody's Risk Frontier to obtain standalone Credit EC for local legal entities, portfolio management tools, etc

EC & Pillar 2A
- Developed methodologies to quantify credit concentration risk (single name, sector & region) for a number of European legal entities. This result has been used for estimating and reporting their Pillar 2A capital add-on. Implementation was done in R (Markdown) with input from vendor model (Moody's Risk Frontier)
- Developed and implemented methodologies to quantify Pillar 2A operational risk capital add-on for a number of European legal entities

ST & Pillar 2B
- Developed and implemented credit risk stress testing framework for multiple European legal entities. It is used in Pillar 2B and quarterly board risk reporting. The implementation is done in R (Markdown) for generating automated report.
- Developed and adopted statistical models to project business unit balance sheet, net interest income and non-interest income under different stress scenarios.
- The models were implemented in R (Shiny) (modern web technologies) to interactively explain and visualize statistical aspects of the models and to facilitate model override performed by experts and portfolio managers

Risk Appetite
- Conducted analyses to justify risk exposure limit changes from capital adequacy and economic cost benefit perspectives. The analyses were implemented in R (Markdown) for generating automated reports under various what-if scenarios

Achievement
- Received exceptional rating in every annual performance review and rewarded with RBC Gold Prize

Jul 2011 – Apr 2015 **Economic Capital Modeling**, *Model Developer*, Royal Bank of Scotland Group

Achievements
- Developed methodology to quantify credit concentration risk. The approach has been accepted by the UK regulator and successfully reduced 2 billion GBP regulatory capital requirement for RBS Group
- Founding team member developed in-house Economic Capital models from scratch for RBS Group, with outstanding performance led to progressive promotions

Economic Capital
- Developed economic scenario generator (multi-factor Correlation model) of Credit EC simulation engine, the factor model estimates correlations among different sectors/industries and regions based on equity and CDS time series. The implementation was done in MATLAB
- Developed economic capital methodology for defaulted assets, which captures concentration risk and correlation among different asset classes. The implementation was done in MATLAB
- Implemented EC tools to quantify portfolio name and industrial/sector concentration risk. The tool has been used across multiple subsidiaries for quantifying credit concentration capital add-ons required by the local regulators. The implementation was done in SAS, MATLAB and Cpp
- Assisted in EC tool development of significant risk transfer metric for Securitization products

Stress Testing
- Developed integrated top-down stress testing framework. The time series models translate economic factor impact to bank's net interest incomes, non-interest incomes, and operational risk losses. The implementation was done in R and LaTeXfor automated analysis & documentation

Nov 2009 – Jun 2011 **Model Validation**, *Quantitative Risk Analyst*, ABN AMRO Group

- Performed independent model validation to regulatory Credit (PD and LGD), Operational risk (AMA) models and internal ALM Behavioral (mortgage prepayment & refinance) and Credit Scoring (mortgage and credit application) models
- Presented findings to senior risk management committee
- Improved model governance and validation standards for Basel 2.5 (Stress VaR and IRC)

Apr 2008 – Oct 2019 **Insurance Risk & Valuation**, *Jr. Actuary*, FORTIS Insurance

- Performed Quantitative Impact Studies (Solvency II) and ad-hoc regulatory stress tests. Developed stress testing models to quantify non-hedgeable insurance risk

Education

2004–2008 **Econometrics**, *University of Groningen*, Netherlands
BSc. (honor distinction)

2017 **Machine Learning**, *Stanford University offered via Cousera*
Certificate: Machine Learning by Andrew Ng

Interests

Triathlon beginner: Half Marathon (2:02); Cycling 160KM; Activities recorded in Strava

Coding Please see my work gallery at jason2003wxy.github.io