

Certified Advanced Programmer for SAS'9



Certified Base Programmer for SAS'9

# **Aditya Sabnis**

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#### Summary

- Quantitative Software professional seeking full-time job that will enhance his research, software skills in the field of Quantitative Analytics, Business Intelligence and Risk Management.
- 3+ years 'experience in Product Development, Quality Assurance Testing and Business Analysis at Oracle Corporation, India working for premier banks of China Ping An Bank, Jilin Bank, Anshan Bank as Applications Developer
- Solid background in Statistics having expertise in Statistical Inference, Regression Models, ANOVA, Linear Regression, Logistic Regression, Credit Risk Management and SAS Programming
- 1+years'experience as SAS Programmer (Graduate Research Project) in developing statistical and econometrics models for credit risk management
- Extremely efficient at handling multiple projects simultaneously in a fast paced working environment
- Good team player with excellent problem solving and communication skills

# Education

• M.S. (Finance) May 2015 - Illinois Institute of Technology, Chicago, IL

<u>Coursework</u>: Credit Risk Management, Bayesian Econometrics, Statistics, Financial Statement Analysis, High Frequency Finance, OOP and Algorithmic Trading Systems, C++ with Financial Applications, Valuation and Portfolio Management.

• B.E. (Electronics Engineering), Aug 2009, University of Mumbai, India

<u>Coursework</u>: Applied Mathematics, Statistics, Probability, Calculus and SAS.

#### Certifications

 SAS Certified Statistical Business Analyst Using SAS 9: Regression and Modeling SAS Institute, (Certificate No: SBARM001623v9)

April 2015

 SAS Certified Advanced Programmer for SAS 9 SAS Institute, (Certificate No: AP013173v9)

February 2015

SAS Certified Base Programmer for SAS 9
 SAS Institute, (Certificate No: BP045267v9)

November 2014

# **Projects**

#### **Illinois Institute of Technology, Stuart School of Business**

August 2014 – To present

**Graduate Research Assistant (Credit Risk Management)** 

Prof: Dr. Imir Q. Arifi, Ph.D. (Senior Vice President at Regions Bank, Alabama)

# **Credit Risk Modeling**

- Implemented Merton structural model using market based variables
- Applied JPM 2001 market standard reduced form using market observable CDS spreads
- Developed hybrid internal rating model comprising 350 reference entities in with A-IRB approach as recommended by Basel II/III accords
- Incorporated Standard & Poor's public debt ratings with historical probabilities of default to include agency rating PDs into hybrid model
- Hybrid model spanned investment grade and non-investment grade space and 12 sectors.
- Completed stress test on the model using DFAST & CCAR scenarios for baseline, adverse & severely adverse economic
  & financial market conditions

### **Credit Risk Model Validation**

- Validated hybrid credit model by following guidelines outlined in SR 11-7
- Developed conceptually sounded theoretical framework in support of chosen approaches.

- Performed literature review and obtained published research in support of chosen approaches and assumptions
- Performed sensitivity and outcomes analysis of the hybrid model by shocking parameters quantifying impact of each variables contribution to hybrid model PDs
- Replicated hybrid model in SAS and matched model outcomes, reducing possibility of coding and implementation Errors
- Performed documentation review and augmented documentation to meet regulatory guidelines.
- Tested the model out of sample using stratified holdout sample comprised of 150 companies excluded from development sample
- Developed governance and control procedures including change control log to document significant model changes

## **Derivative Pricing and Financial Risk Management Application (MATLAB)**

- Applied Monte-Carlo simulation on electricity load, wholesale electricity price and daily temperature, and programmed MATLAB to simulate the before-tax profit of a period of 3 month.
- Calculated the number of positions of electricity forward contract and temperature derivative used to hedge its financial risk in order to limit the risk of profit loss due to temperature changes.
- Recommended best hedging strategies for the company to maximize profit and limit loss risk.

#### **Automated Trading Engine (C#, Excel)**

- Applied Object-oriented design approach to design and implement the trading platform in C# .Net environment. Connected to Interactive Broker's API to obtain live tick data.
- Integrated a breakout future trading strategy in the platform. Provided a graphical user interface to start/stop strategy, set strategy parameters as well as observe P&L and order records.
- Built, executed and back-tested a basic statistical arbitrage strategy to profit from virtually any market conditions: uptrend, downtrend or sideways movement using co-integrated stocks

#### **Experience**

# IIT Office of Graduate Admissions, Chicago, IL

April 2014 - May 2015

#### **Graduate Student Supervisor**

- Performing Statistical Analysis in Excel and VBA by calculating the GPA for prospective International students.
- Monitoring, updating the database system and performing Data entry for the documents received into BANR software and DSS system

# Oracle Corporation, Mumbai, India

April 2010 - June 2013

#### Associate Applications Developer

- 3+years'experience in Product Development, Quality Assurance Testing and Business Analysis for Oracle Banking Product Oracle FLEXCUBE Core Banking
- Worked as Applications Developer (Core Java, SQL) for premier banks of China namely Ping An Bank, Jilin Bank and Anshan Bank for financial web applications development, Quality Assurance and Build/Deployment related activities.
- Expertise in Black Box Testing, Functional Testing, GUI testing, System Testing, Integration testing, Regression testing, and Performance testing for Oracle FLEXCUBE Core Banking
- Proficiency in build/ release & configuration management in managing source code repositories using Tortoise SVN tool
- Ensure comprehensive test coverage by working closely with the product and engineering teams to prioritize testing execution and report on test execution progress and results in JIRA.
- Analyze business and system requirements, review Business Requirement and Design documents and manage development of specifications to create and execute detailed test plan.
- Managing a team of 5-7 people along with generating monthly risk metrics and reports for senior management.
- Demonstrated effective time-management, with ability to handle multiple tasks, meet deadlines in dynamic environment, as well as to set priorities in a complex team and work environment