

New York Risk Modeling Networking Event

JPMorgan Chase & Co.

Monday, March 6, 2017



Resume Book

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Anees Attarwala
7100 Kennedy Boulevard East, 8R, Guttenberg, NJ 07093
attarwala.anees@gmail.com, (574)-387-0503

Summary of Qualifications

-
- Close to 6.5 years of experience in financial services industry in domain of quantitative finance focused on modeling and analysis of cross asset financial derivatives.
 - Experience using Monte-Carlo simulations, numerical techniques (trees, finite differences) and strong foundations in Stochastic Calculus, Probability Theory, Partial Differential Equations (PDE), volatility modeling, time series analysis, Factor modeling, VAR estimation, and quantitative portfolio optimization.
 - **Computer Skills:** C# and C++ software programming for derivative pricing, good grasp of OOP, templates, Python, GIT, UNIX, MATLAB, VBA, SQL, Bloomberg, INTEX.
 - **Certificate in C++ Programming for Financial Engineering offered by Baruch College, CUNY – June 2015.** Passed **CFA level II** Exam in June 2012. Series 7, Series 63.

Professional Experience

Axioma Inc, New York City

Quantitative Analyst/Developer, Analytics Group

Mar 2016 - Present

Quantitative modeling and analytics development of Axioma's multi asset risk platform. Develop enterprise ready, financial risk and pricing software system in C#. Research and implement closed-forms, monte-carlo simulations, trees and PDE based pricing solutions to enhance cross asset coverage.

- **Projects:**
 - Developed a **PDE pricing framework** as a generic tool for pricing financial instruments. Exposed the framework within Axioma's risk system to price various fixed income instrument listed below. Interface allows flexible choice of discretization methods, and step sizes, among other features.
 - Managing and guiding a junior member on implementation of a **Convertible Bond** model employing the PDE framework.
- **Model Implementations:**
 - **Credit:** CDS Option, CDX Inde0078 Tranche using one factor copula model.
 - **Fixed Income:** Callable Bond, Callable FRN using HW model.
 - **Rates:** Caps, Floors and Swaption pricers using Stochastic Alpha Beta Rho volatility model, Inflation Swap pricer.
 - **Barrier Options:** various Equity Barrier Options.

Citigroup, New York City

AVP, Credit Valuations

Nov 2013 – Feb 2016

Evaluate market value of correlation and exotic products for structured credit derivative desk. Interact with traders, risk managers and pricing group on issues related to P&L impacts, capital adjustments and reserves.

- Compute prices for index tranches, bespoke tranches, first to default baskets, and index options.
- Estimate NAV using intex for **ABS CDOs**. Statistical price impact analysis on **secondary CLOs**.
- Analyze and document monthly valuation results. Calculate **credit and liquidity capital reserves** for the credit derivatives book. Provide commentary on market color for structured credit business.

MSCI Inc, New York City

Aug 2013 – Nov 2013

Senior Associate, Market Data Analytics

Produce financial market data including data sourcing, processing, and loading for use in risk management and portfolio management suites.

PricewaterhouseCoopers, New York City

July 2011 – Aug 2013

Experienced Associate, Financial Engineering and Derivatives Group

Deliver quantitative analytics and model development solutions for valuation requirements of institutional clients.

- **Fixed Income Derivatives:** Price callable, puttable and convertible debt by developing binomial lattices and short-rate models (**BDT, HW, and BK**) in MATLAB and C++.
- **Derivatives:** Build models to price a variety of financial instruments – interest rate options, preferred securities with varying rights and exotic corporate derivatives. Implement finite difference schemes, Monte-Carlo simulations in C++.
- **Credit Risk Analysis:** Create excel based models to implement credit value adjustment (**CVA**) to estimate counterparty default risk concerning valuation of interest rate derivatives.
- **Contingent Considerations:** Build custom models for earn-out valuations associated with business combinations by simulating underlying variables via Geometric Brownian Motion.

Houlihan Lokey Howard and Zukin, New York City

July 2008 - Feb 2009

Analyst, Derivatives Group

Perform valuations of securitized assets, fixed income securities and employee stock options.

Education

University of Notre Dame

Notre Dame, Indiana

Master of Science in Applied Mathematics, May 2008

CGPA: 3.88

Master of Science in Chemical Engineering, May 2008

CGPA: 3.95

Enrolled in PhD Program, Dept. of Chemical Engineering, ABD

July 2009 – July 2011

Performed research in the discipline of fluid dynamics aimed at development of pathogen detection applications.
As a Teaching Assistant tutored engineering undergraduates.

Indian Institute of Technology Madras (IIT Madras)

Chennai, India

Ranked **1075** in Joint Entrance Examination - **JEE 2001** (out of 200,000 candidates)

Bachelor of Technology in Chemical Engineering, July 2005

CGPA: 8.16

PRATEEK BHATNAGAR

◆ 318 Hoboken Ave Jersey City, NJ 07306 ◆ bhatnagar.prateek90@gmail.com ◆ 608-395-9280

EDUCATION

Rutgers Business School

Master of Quantitative Finance (CGPA 3.65/4)

Newark, NJ

September 2015 - May 2017

Coursework: Optimization Models in Finance, Econometrics, Financial Time Series, Probability, Analysis of Fixed Income Securities, Numerical Analysis, Stochastic calculus, Financial Modeling-I, Indexing and ETFs.

Indian Institute of Science Education and Research, Thiruvananthapuram

Kerala, India

Dual degree, Bachelor of Science and Master of Science in Mathematics

August 2009 - May 2014

EXPERIENCE

CreditSights

New York, New York

Intern - Quantitative Analysis / Strategy

May 2016 - Dec 2016

- Reviewed and reconciled RWA for Basel I & Basel III standardized across different economic scenarios.
- Responsible for validation of internal rating-based Credit Loss Forecasting Models including PD/LGD modeling.
- Populated and validated data from various data sources, designed 4 Excel templates with Macros and Pivot tables to manipulate data, successfully increased the data accuracy and visibility.
- Developed automated tasks in Excel via VBA, helped team reduce task time for 4 hours per day and also improved data quality.
- Created a web based platform in Python (Spyre-flask) for internal use by analysts and developers to allow for sector level analysis and information extraction. Also, created an executive dashboards using Shiny Dashboards and Shiny JavaScript interfaces.

Hewlett-Packard (HP)

Kanpur, India

Summer Intern

June 2011 - July 2011

- Involved in various phases of software development; conducted requirement gathering, design analysis and code development. Developed and implemented the MVC architectural pattern using Struts Framework.

RESEARCH PROJECTS

Financial Forecasting with Artificial Neural Networks

March 2016

- Designed and constructed a model to forecast a monthly AAA corporate bond rate assumed to be positively related to 3-month Treasury bill rate, Federal Reserve Index of Industrial production, and rate of growth in the producer price index for all commodities. Implemented an Artificial Neural Network using C++ by introducing back propagation mechanism.
- Achieved 94% accuracy on training set data and 97% on the generalization set to obtain finalized weights.

High Frequency Quantitative Strategies for Portfolio Selection

January 2016 - May 2016

- Gathered equity data using Bloomberg for top 40 stocks capped by market weight in MSCI world ETF.
- Constructed the alpha generating portfolio trading strategies in order to maximize the cumulative wealth of an investor in long-term (5-6 years). Implemented follow the looser, follow the winner and pattern-based strategies with transaction costs.

Asian Option Pricing

January 2016 - May 2016

- Performed variance reduction with control variate technique in pricing Asian Options

First-Passage Stochastic Time-Change Modeling approach to Option Pricing

August 2013 - May 2014

- Developed a mathematical model for pricing exotic equity derivatives (Barrier options with stochastic volatility) for various payoff structures, such as knock-in and knock-out options.
- Implemented a numerical scheme for this mathematical model using MATLAB and C++.

Analysis and Comparison of Credit Risk Models under First-Passage Time Framework

June 2013 - August 2013

- Researched the applications of structural credit risk (Merton, deterministic and stochastic time-change) framework to assess the default probability of 30 corporations based on their equity performance and capital structures.
- Analyzed default dependency structure in multi-credit products such as Collateralized Debt Obligations (CDOs) and a basket of Credit Default Swaps (CDS). Valued CDO using Gaussian Copula Model.

A Study of Microstructures Arising from First-Order Structural Transitions: A local mean field analysis

May 2013

- Performed Markov Chain Monte Carlo (Metropolis algorithms) simulations in FORTRAN in order to calculate the probabilistic estimate of the mean spins using mean field approximations.

SKILLS & OTHERS

- Programming:** C++, VBA, SQL, MATLAB, R, Python, Java, Microsoft Office, Shiny, Pandas, Java Script – intermediate
- Quantitative:** Monte-Carlo Simulations, Derivative Pricing, Regression Analysis, Binomial-Trinomial Trees, Finite Difference, Support vector Machine, H-Clustering, K-means Clustering, Machine Learning, VAR
- Certifications:** Oracle Java Associate Certified Programmer 7
- Fellowship:** INSPIRE Fellow, Department of Science and Technology (DST), Government of India for period 2009-2014.
- Achievements:** Ranked 10th as a team out of 52 schools in MathWorks Algorithmic trading during Rotman International Trading

Associate Director ♦ UBS AG ♦ New York, NY, USA

12/1/2015 - Present

- ❖ Modeled UBS AG Intermediate Holding Companies' Revenue Forecast focusing on Corporate Client Solutions including Debt Capital Market, Equity Capital Market, Advisory, Leveraged Capital Market, FX, Rates and Credit Models. Build statistical models and increased modeling efficiencies by building SAS codes to handle variable selection process. Presented findings to Managing Directors of each business line and had in-depth discussion on each model. Developed multiple Challenger Models for each Corporate Client Solution business line using a different perspective and modeling methods to represent another view on business line's revenue forecast.
- ❖ Forecasting results cover 20% of UBS AG's Intermediate Holding Companies' Revenue. Evaluate and understand each business lines' risk drivers and select appropriate macro variables to produce forecasts for each business line. Attained understanding on how Investment Bank functions and represent revenue streams through statistical model. Used multiple statistical testing results such as Augmented Dickey Fuller Test (Stationarity), Breusch Pagan Test (Heteroskedasticity), Breusch Godfrey (Autocorrelation) and Anderson Darling Test (Residual Normality).

Senior Analyst♦ AIG Global Asset Management ♦ New York, NY, USA

1/6/2014 - 12/1/2015

- ❖ Monitored AIG's credit risk usage and collateralized mortgage loans (CML) using Python, performed calculations including credit capital utilizing Moody's Risk Frontier Analytics and Modified Basel Credit Capital (MBCC) for AIG Corporate, Business Units and Lot levels. Automated risk capital comparisons between multiple AIG's risk database in Micro-strategy and Global Exchange Portal. Automate and produce Risk Usage limit reports using SAS and R for periodic Financial Risk Group Reports. Researched Market Indicators using Bloomberg and Barclays live and performed analytics using risk neutral implied probability derived by Market Risk Officer. Translated Mathematica codes into R better suit business needs with better understanding of index performances.
- ❖ Conducted multiple income statement and balance sheet reconciliation exercises with proprietary data system used by multiple business units. Researched Property and Casualty market prices using data provider SNL. Adapted actuarial knowledge in Property Casualty by understanding Loss and Reserve Analytics and other regression models that drive market premiums. Designed multiple reports that indicate AIG's risk exposures to Senior Board of Director of AIG. Supported AIG's risk management capital and liquidity stress test process.

Fixed Income Risk Specialist ♦ Standard and Poor's ♦ New York, NY, USA

1/10/2013 - 1/3/2014

- ❖ Demonstrated ability to multi-task by involving in three projects that require in depth data handling, regression testing and model - development skills. Showed good communication and client facing skills by having client meetings regularly
- ❖ Supported Probability of Default model development process using software R. Gained exposures into various statistical selection methods including greedy forward selection. Accumulated knowledge in statistical testing method such as Akaike Information Criterion (AIC) and Receiver Operating Characteristic (ROC) and other programming skills
- ❖ Performed regression analysis on company scores against financial ratios to tailor S&P Risk Solutions scorecards for two clients. Participated in stress testing model validations for Fifth Third and BB&T bank using statistical software SAS. Performed back-testing with standard statistical indicators such as System Stability Index (SSI), Divergence test and Kolmogorov Smirnov Test for multiple PD models
- ❖ Automated Probability of Default calculations using static pool methodology (cohort method) for the Project Finance Data Consortium. Researched credit spreads and currency base rates data using Bloomberg Terminal for product development
- ❖ Demonstrated initiatives and interpersonal skills by working frequently with the technology team in addressing project's demands
 - ☒ Researched information on Basel III requirements for Project Finance Annual Report. Co-authored new product 'Project Finance – Risk Drivers Analysis' to address post-default analysis in infrastructure sector of the Project Finance asset class.

Research Assistant ♦ New York University ♦ New York, NY, USA

4/1/2010 - 5/3/2011

- ❖ Implemented pseudo spectral and finite volume method to effectively assess atmospheric tracers changes
- ❖ Research results were presented in the 91st Annual Meteorology Conference in 2012 by Professor Edwin Gerber
- ❖ Performed research and data analysis utilizing various programming languages, including MATLAB and C++ in a Linux environment

EDUCATION**Master of Science in Mathematical Finance: 2012**

Stochastic Processes, Stochastic Calculus, Times series analysis, Linear Regression, Option Pricing models
Columbia University, New York City, New York, NY

Bachelor of Science in Mathematics and Economics: 2011

Dean's List; Mathematics Honors Track; Courant Institute of Mathematical Science Undergraduate Research Fund Recipient
Graduated with gpa 3.5 and awarded with Founder's Certificate
New York University, New York City, New York, NY

NYU School of Continuous and Professional Studies Certificate: 2015

Intermediate, Advanced C++ Programming including study of Data Structures, STL, Linked-List Implementation

Skills, Certificates and Other Interests

Language Skills: English (Fluent), Mandarin (Fluent), Cantonese (Fluent)

Programming Skills: VBA, MATLAB, SAS, R, Python, Linux, C++, Objective-C, Swift, GitHub, Xcode, javascript

Certificates: FRM Level II candidate

Projects: Day trade portfolio analytics utilizing C++ techniques. DNA Compression project utilizing C++ for biomedical firm, successfully compressed BAM file format with 50% Compression Ratio. "Simple", "JeunessebyAnita" and "MathA++" App - Utilizing JSQMessage framework from swift and javascript, implementing Firebase APIs, iOS app submitted and on sale in apple store.

Yunhan Chang

(646)-675-0601 | 271 W 47 St, New York, NY 10036 | yc2963@columbia.edu

EDUCATION

COLUMBIA UNIVERSITY

Master of Science in Financial Engineering

New York, NY

Aug 2014 – Dec 2015

- Cumulative GPA: 3.76/4.00

- Coursework: Hybrid Product, Stochastic Models, Optimization, Programming for Financial Engineering, Monte Carlo, Data Analysis, Machine Learning, Quantitative Risk Management, Continuous Time Models

PEKING UNIVERSITY

Bachelor of Economics, Minor in Statistics

Beijing, China

Sep 2010 – Jul 2014

- Cumulative GPA: 3.6/4.00, GRE Math: 170/ Verbal: 160/ Writing 3.5

- Coursework: Fixed Income, Quantitative Finance, Computational Statistics, MATLAB programming, Time Series

UNIVERSITY OF VIRGINIA

Exchange Student, McIntire School of Commerce

Charlottesville, VA

Jan 2013 – May 2013

- Ranked top in courses including Advanced Derivatives, Managerial Accounting and Advanced Corporate Finance

EXPERIENCE

OMNIMARKETS, LLC

Quantitative Financial Analyst

New York, NY

Feb 2016 – Jan 2017

Quantitative Financial Analyst Intern

Aug 2015 – Dec 2015

- Back tested the Standard Portfolio Analysis of Risk (SPAN) model and conducted risk analysis for a wide range of futures and options. Built SPAN model to calculate daily initial margin for test portfolios in C# WPF
- Developed a fully functional back testing application which can be used to test the performance of a set of initial margin time series; tests metrics including Basel traffic light, Binomial tests, Kupiec's POF test, Christoffersen test for analyzing the initial margin's coverage property and independence property
- Implemented the Gabillon two factor futures pricing model for crude oil futures in R, and afterwards it was also extended to other asset classes including corn futures and FX futures
- Built a customized option pricing library in C# with models for both American and European options
- Constructed continuous futures price/return time series from individual contracts; flexible to choose no price adjustment or panama forward/backward price adjustment, and set the number of days to roll before expiration; coded in C#
- Researched and tested risk metric performance of constant maturity futures return time series, constructed using three methods: weighted average of adjacent contracts, re-pricing and spline interpolation
- Implemented credit risk models (PD, LGD, EAD) in C# as part of the model validation analytics infrastructure
- Implemented the mean-variance asset allocation model and Black-Litterman model for portfolio construction
- Built and tested a trading model for wheat and corn futures contracts, based on signals generated from market news, using NLP machine learning techniques
- Improved the C# QLNet pricing library for the structured products (CDS, CDO), and built a web service interface for other team members to use

QUICKEN LOANS

Summer Intern, Credit Modeling

Detroit, MI

May 2015 – Aug 2015

- Developed a predictive model for credit risk transition probability (roll rate) with Markov transition model using R
- Improved the prediction accuracy for 30-day to-60 day delinquent by about 15% from the original model in use
- Managed and collected mortgage payment and pricing information from the database using SQL

COLLIERS INTERNATIONAL

Analyst Intern, Valuation & Advisory Services

Beijing, China

Nov 2013 – Feb 2014

- Conducted macroeconomic research and created a 50-page report on “The economic prospect of urban areas”. Analyzed over 200 comparable properties for valuation projects and built a sensitivity analysis model in Excel using VBA
- Assisted in valuation for target properties by building automated DCF models using VBA for over 10 valuation projects
- Traveled to suburban area of Beijing to conduct investigation to collect firsthand information about target properties

SKILLS / CERTIFICATES

- Computer Skills: C# (WPF), Python (numpy, pandas), C++, R, Matlab, SQL, VBA, Stata
- Passed all three levels of CFA exams; Passed FRM level I exam

Scarlett D Chen

Scarlett.dchen@gmail.com | (508) 847-6661
2 Gold Street, New York, NY 10038
www.linkedin.com/in/scarlettdchen

EXPERIENCE

Santander Holdings USA (SHUSA)

Senior Quantitative Analyst, Model Development and Methodology
• CCAR, DFAST

New York, NY

Jan 2017 – Present

Principal Financial Group (PFG)

Spring & Summer Analyst, Fixed Income

- Performed financial statement analysis on individual companies for commercial paper purchases
- Maintained and updated financial models of 30+ US and Canadian banks and asset managers
- Modeled credit spreads (OAS) using POINT indices to optimize asset allocation using R programming
- Formulated Moody's rating methodologies and developed tracking tools of credit changes in Excel
- Fundamental credit analysis of Marriott International (MAR) training; Private placement roadshows

Des Moines, IA

Jan 2016 – July 2016

Standard Chartered Bank (SCB)

Senior Credit Analyst, Credit Risk

- Developed and documented credit policies and procedures to manage credit risks of lending portfolios through data analysis using SAS and SQL; Delivered 30+ portfolio performance and risk analytics reports
- Created and maintained dashboards to monitor portfolio risk profile and models validity
- Worked on ad hoc modeling and programming assignments from data gathering, cleaning, parsing, algorithm design, model validation to implementation, including scorecard development, risk-based pricing, scenario analysis, loan impairment forecasting, stress testing, etc.
- Collaborated with People's Bank of China (PBOC) and Financial Services Authority (FSA) to meet regulatory requirements on data issues; Provided support to customer service team on credit history disputes, and slashed dispute volume by 80% in 6 months by integrating processes and improving data quality
- Received Employee Risk Star Award of 2011 and 2012

Shanghai, China

April 2011 – Dec 2012

Course-based Modeling and Data Analysis

Research Project: Arbitrage-Free Derivatives Pricing, Capstone

Worcester, MA

WPI, 2015

- Led a group of 4 computing total valuation adjustment (XVA) of a European option, accounting for funding costs, counterparty credit risks, and collateralization using binomial tree model and MATLAB
- Organized meetings with the advisor for questions and progress; led discussions within the team

Interactive Brokers Online Virtual Trading

WPI, 2015

- Led a team of 3 managing a portfolio of \$1 mm paper money in an Interactive Brokers trading account (asset allocation, diversification, option pricing, Monte Carlo simulation, risk hedging) using MATLAB
- Produced a 30-page professional quality report graded A

Portfolio Valuation and Quantitative Risk Management (QRM)

WPI, 2014 – 2015

- Constructed minimum-variance portfolio and efficient frontier; Simulated portfolio performance
- Experimented BARRA Structural Factor Model, risk decomposition, and marginal contributions with R
- Modeled returns using time series data analysis (GARCH, Value at Risk (VaR), Conditional Value at Risk (CVaR)); Monte Carlo priced a CBO of three tranches based on default risks implied by Credit Default Swaps (CDS)
- Selected by the professor to present to the class (3 out of 30+ students)

EDUCATION

- M.S. in **Financial Math, GPA: 4.0**, Worcester Polytechnic Institute (WPI), Worcester, MA, 2014 - 2016
Topics: Stochastic Calculus; Probability; Black-Scholes model, the Greeks; Derivatives Pricing; Risk-neutral Valuation; Fixed Income Valuation; Modern Portfolio Theories; VaR, CVaR; Applied Multivariate Analysis
- M.S. in **Business**, Antai College of Economics and Management, Shanghai Jiaotong University (SJTU), Shanghai, China
- B.S. in **Statistics**, Huazhong University of Science and Technology (HUST), Wuhan, China

SKILLS & ACTIVITIES

- Microsoft Office; Excel VBA; R; MatLab; SAS/ SQL; Bloomberg; Barclay's POINT; SNL; Mandarin
- WPI activities: Co-founder and Vice President of *Financial Math Club*; Instructor's Assistant; Volunteer of *Girl Scout STEM Expo* (WPI, 2014) and *National Math Festival* (Washington D.C, 2015); Member of *Toastmasters International* and *Society for Industrial and Applied Mathematics (SIAM)*

EDUCATION

COURSERA

Machine Learning Specialization (in Python)

Nov 2016

- Machine Learning Foundation, Machine Learning Regression, Machine learning classification

Data Science Specialization (in R)

- R programming, Getting and Cleaning data, Exploratory data analysis, Statistical inference, Regression Models (https://github.com/analesin/ExData_Plotting1), (<https://github.com/analesin/Getting-and-Cleaning-Data>)

UDACITY

Ongoing

- Enrolled in “Machine Learning Engineer” nanodegree program. (in Python)
 - Completed project where you have to predict Boston housing prices (https://github.com/analesin/Machine_learning_udacity)
 - Started project to build a student intervention system where you can predict which students are unlikely to graduate and intervene.

COLUMBIA UNIVERSITY, School of Engineering and Applied Science, New York, NY

Aug 2015

Master of Science in Financial Engineering

Coursework done: Stochastic calculus, Foundations in financial engineering, Monte Carlo, Credit risk.

UNIVERSITY OF FLORIDA, Gainesville, FL

May 2010

Doctor of Philosophy in Mathematics

Thesis: Hidden subgroup problem for Frobenius groups

- Studied one aspect of the problem for a set of non-abelian groups, (wherein given two elements a and b in the group $ab \neq ba$), called Frobenius groups
- Found necessary and sufficient conditions for subgroups H of different Frobenius groups G to be distinguishable from the trivial subgroup (a subgroup with only the identity element)
- Looked at conditions under which some particular subgroups of a Frobenius group are distinguishable or indistinguishable algorithmically i.e. an algorithm using a particular method can/cannot distinguish the subgroups in polynomial time

BANGALORE UNIVERSITY, Bangalore, India

Dec 2002

Master in computer applications

CALCUTTA UNIVERSITY, Calcutta, India

Sept 1997

Bachelors and Masters in Mathematics

EXPERIENCE

GOLDMAN SACHS

Sep 2015-present

Associate

- Review Model development documents to verify the conceptual soundness of the models. Also review Validation documents to verify that validators have effectively challenged the modelers and the validations done appropriately check the concept, sensitivity and conservativeness of the models.
- Provide feedback on the conceptual part of the model and how to improve the validation aspects to the stakeholders. Often for regression based models write R or python codes to verify some parts of the models whenever appropriate input data is available.
- Review regulatory and firm wide policies to determine whether the model development and validation documents are in line with the regulations.

INTERNSHIP

Internship at Massar Capital Management, New York, NY

Mar 2015-May 2015

- Implemented a risk measurement strategy using absorption ratio in MATLAB
- Developed a GUI in MATLAB wherein the user can look up graphs of absorption ratio depending on the number of asset classes chosen and historical dataset used

BARD HIGH SCHOOL EARLY COLLEGE, New York, NY

Sep 2010 -Jun 2014

Assistant Professor

- Taught trigonometry, algebra, pre-calculus in classes of 30 undergraduate students
- Developed curriculum for linear algebra, differential equations and number theory
- Served in the math department faculty recruitment committee

UNIVERSITY OF FLORIDA, Gainesville, Fl

Aug 2003 -May2010

Teaching Assistant

- Taught Calculus, Pre-calculus, Trigonometry

SKILLS

Programming: R, Python, C/C++

JUN DU

New York | (917) 293-1590 | dujun.john@gmail.com

SKILLS SUMMARY

- Skilled in Machine Learning, Time Series, Volatility Modeling, and other Stat Modeling
- Experienced in Fixed Income, Quantitative Trading Strategies, and Corporate Finance
- Proficient in Python, Scala, Java, Q/KDB, VBA, JavaScript, C++, SAS, R and MATLAB

EXPERIENCE

Morgan Stanley, New York

3/16 - present

Associate, Primary Quantitative Strategist, Global Special Situations Group

- Conduct fundamental analysis automation with machine learning technology
- Develop P&L analytical model to explain desk profitability by trading activities and clients
- Lead and implement quantitative portfolio management and inventory/strategy tracking tool
- Build valuation and risk models for distressed debts and structured products

Morgan Stanley, London

5/14 - 3/16

Associate, Quantitative Strategist, EU Flow Corporate Credit Trading Desk

- Developed statistical mean-reversion strategies to identify trading opportunities for the desk
- Built hedging strategy for sovereign credit exposures based on PCA and fundamental analysis
- Implemented real-time platform to visualize trading ideas, risk, P&L, and capital analysis

J.P. Morgan, New York

10/13 - 1/14

Associate Intern, Fixed Income Pricing and Rapid Application Team

- Implemented real time pricing, risk and P&L management applications
- Built pricing and risk management models for rates products desk

EDUCATION

University of California, Berkeley, Haas School of Business

2013 - 2014

Master of Financial Engineering

The University of Hong Kong, Hong Kong

2011 - 2013

Master of Statistics, Senior Research Assistant

The University of Hong Kong, Hong Kong

2008 - 2011

Bachelor of Science, Double Major: Statistics and Finance

RESEARCH PROJECTS

- Measuring & Predicting Market Asset Bubbles with Text Mining
- High Frequency Volatility Forecasting and Volatility Trading Strategies
- From CDS Implied Volatility To Equity Option Vega Trades
- Informed Society Index, proposed in the World Economic Forum
- Data Mining on Political Figures in China

OTHERS

- FRM; CFA level II candidate
- 1st Place Winner in Options Trading, Rotman International Trading Competition (2014)
- 1st among US teams in Algo Trading, Rotman International Trading Competition (2014)
- Second Prize of Innovative Data Mining Award sponsored by SAS institute (2012)
- Interests: Flute; Chinese calligraphy; Traveling; Extreme sports

RUI GAO, FRM

11 Frank E. Rodgers Blvd. S., FL2, Harrison, New Jersey 07029
(202) 957-0408 gaorui@nyu.edu http://www.linkedin.com/in/rugao89

EDUCATION

New York University New York, US

Master of Arts, Economics, May 2013 GPA: 3.83 Rank: Top 5%

Coursework: *Financial Econometrics*: GARCH, CAPM, VaR, Black-Scholes Model, Term Structure Models;
(Courant) Risk and Portfolio Management: Mean-variance analysis, PCA, risk metrics

Renmin University of China, School of Economics Beijing, China

Bachelor of Arts, Economics, June 2011 GPA: 3.78 Rank: 1 / 45

EXPERIENCE

CRISIL US LLC – An Standard & Poor's Company Jun. 2015 - Present

Senior Quantitative Analyst Apr.2016 – Present New York, US

- Worked on-site as the project manager and led a team of three in Global Country Risk Strategy Group for Citi Group CCAR 2017 scenario design process.

- Automated macro-economic variable forecasting methodology in SAS
- Conducted stepwise and autoregressive linear regression for over 2000 core and non-core variables
- Developed and implemented new forecasting methodology for employment variables
- Validated the parity relationship between interest rates and FX rates
- Led the project to expand BHC scenarios to FRB scenarios and developed IR Driver models

Quantitative Analyst Jun.2015 – Mar.2016 New York, US

- Worked on-site for Credit Suisse on Market Risk Model Validation project as part of bank's IHC application preparation process.

- Time series analysis for model development: Outlier treatment, cluster analysis, etc.
- Built the templates to conduct backtesting, Risk Theoretic P/L Attribution on hundreds of hedged and unhedged MBS hypothetical portfolios, including TBAs, coupon swaps, agency swaps, and IR swaps
- Developed and implemented the challenge models on TBA dollar rolls into production
- Worked on assessment and validation of Market Risk CCAR model
- Conducted CCAR scenario analysis on CDS pricing model
- Automated the complete VaR model backtesting process using R

- Awarded as the employee of the firm on Sept. 2015, three months after joining the firm

Rosemont Capital, LLC. Aug. 2013 – May. 2015

Market Research Analyst New York, US

- Conducted macroeconomic research on US secondary real estate markets, such as demography, industrial cluster, and vacancy rate analysis. Handed in high quality reports to incorporate into firm's monthly newsletter

- Assisted with the fundraising campaigns targeting at family offices and institutional investors for Rosemont Commercial Real Estate Fund II and Rosemont Seneca Technology Partner Fund II

- Maintained investor's relations with CRM platform 'Salesforce' and built a database over 9,000 records

- Prepared Chinese-version deck, tax supplemental materials and memorandum

The Midway Group, Hedge Fund Jun. 2012 – Aug. 2012

MBS Research Summer Intern New York, US

- Constructed Freddie Mac loan-level data base containing over 300 million observations using MySQL

- Built an innovational loan-level multinomial logistic prepayment model with robust tests using SAS. Used thin-plate spline and local regression to model seasoning ramp.

- Gave one formal presentation and handed in one research report ([Reference letter](#))

SKILLS

Certificate: FRM Charterholder; Passed CFA Level III

Programming and Software: MS Office Suites, R, SAS, Matlab, Eviews, Stata, C++, Salesforce

Roberto Gavazzi, CFA

gavazziroberto@gmail.com

Mobile: +1.646.708.5479

www.linkedin.com/in/Roberto-Gavazzi

OBJECTIVE

Experienced manager within the Quantitative Advisory practice of EY looking to leverage as quantitative analyst or researcher over 8 years of experience in forecasting, stress testing and pricing model development.

PROFESSIONAL EXPERIENCE

Ernest & Young , Quantitative Advisory Services, Manager	New York	2013 – Present
	London	2011 – 2013
	Milan	2008 – 2011

- Promoted rapidly through a series of increasingly responsible management positions based on strong performance. Relocated from Milan to London and then from London to New York.
 - Regularly lead complex projects overseeing 10+ people
 - Developed and implemented:
 - CCAR stress test models to estimate potential losses on trading book under many scenarios for several asset classes, including equity, fixed income, FX and securitized products, including modeling of scenarios using Regression and Principal Component Analysis (PCA) and Issuer Default Losses
 - CVA, DVA, FVA and PFE models based on Monte Carlo simulation for several asset classes
 - Interest rates, equity, currency and commodity projection models with respective volatilities simulation
 - Pricing models on wide variety of derivatives, including credit basket, CDO, energy, exotic and other structured and securitized products
 - Parametric, historical and Monte Carlo Value at Risk models
 - Machine learning methods to forecast companies performance and default rates
 - Hedge effectiveness on asset management portfolios and capital requirements on banking portfolios

SKILLS

Programming: R, Python, Matlab, VBA, SQL, MS Office, Bloomberg

Managerial: Presentation, Communication, Writing, Project Management and Problem Solving

QUALIFICATION AND EDUCATION

CFA® charterholder

Politecnico di Milano – Master of Science, Finance and Management Engineering

Graduated 2007

Politecnico di Milano – Bachelor's Degree, Electronics Engineering

Graduated 2004

VALENTIN D. GHITA

(347) 510-4988

val_ghita@yahoo.com

SUMMARY

- Extensive background in programming, finance and mathematics, being able to bridge the gap between quants, technology, risk and trading.
- Solid understanding of analytics, valuation and risk management models in equities (including microstructure), fixed income and commodities derivatives products.
- Outstanding communication and interpersonal skills with effective collaboration across various functional teams.

TECHNICAL SKILLS

Languages, tools: **C++ (STL, Boost), C#, F#, Python**

Database Platforms: **Sybase T-Sql, Oracle, SqlServer**

Other: **Linux-Bash, R, q/kdb, Excel (Vba, COM)**

EDUCATION

M.S., M.F.E. - Applied Mathematics

Baruch College, CUNY, December 2006

B.S., M.S. Engineering - Aerospace, Avionics

Polytechnic Institute of Bucharest, Romania

EMPLOYMENT

Citigroup, New York, NY

10/2015 to present

Equity Derivatives Quant Analyst

- Currently working on implementation and re-engineering of various exotics and flow analytics **C++ libraries** in Citi equities.
- Extended the library to implement new analytics, market data and risk interfaces.
- Improved the Monte-Carlo engine, enhanced code reuse and extended unit test tools through generic XML.
- Implemented tools and wrote code adapters for fitting daily Totem volatility data through Autofit – Citi's Systematic Trading vol fitter.
- Autofit support and implementation of fit on demand (vols and borrows) in Excel.

RBS Global Markets, Stamford, CT

10/2010 to 10/2015

Interest Rates Quant Developer

- Worked on the treasuries desk analytics platform used for bonds, notes, pricing, risk, hedging and P&L using **C++, Excel, F#**. Used q/kdb and **Python** to provide analysis of quotes across systems.
- Contributed to derivatives product development for the flow and exotics interest rates derivatives desk using **C++/Linux** supporting **IR Swaps, Swaptions, Caps/Floors Options, Bermudans**.
- Migration of models to a new C++ analytics library included swaptions, caps/floors and CMS

products under **SABR** volatility model. Modified the native Hull-White model to support different discount/projection curves **OIS**.

- Improved the volatility engine to use trade day vs calendar day surface modes in both SABR normal/lognormal regimes.

Merrill Lynch, New York, NY

03/2007 to 08/2010

Equity Global Analytics

Equity Derivatives Quant Analyst

- Provided general product development and trading desk support i.e. solving technical and analytical issues for the index, flow, dispersion and exotics equities traders.
- Participated in the migration of models to a new **C++ analytics library** - included Options (compo, quanto), Callable/Target notes, Range Accruals, Cliques, Himalayans, Volatility/Variance Swaps, Correlation/Dispersion and other **exotics-structured derivatives products**.
- Developed dispersion pricing tools in Excel and volatility scenario analysis spread sheets for the index desk.
- Wrote a variety of pay-offs priced by **Monte-Carlo**, modified the generic script implementation library in C++ and added more embedded functions to the proprietary scripting language. Helped traders with structured products payoffs setup.
- Produced pricing and risk tools using **C++ and Excel/VBA**. Worked w/ traders on trade structuring and product valuation templates.
- Worked on the implementation of the **Risk Scenario** Engine. This key component of Equity Analytics system is responsible for calculating Greeks and risk scenarios.
- Optimized the libraries build and provided use templates and examples for the IT teams.

CIBC World Markets New York, NY

12/2001 to 03/2007

CDSP – Commodities Derivatives Structured Products

Commodities Derivatives Quant Development, Team lead

- Hands on team lead in CIBC global derivatives area for the ‘Catalyst’-**commodities derivatives trading system**. Technology used: **C#, C++, VBA, TSql- Sybase, Visual Basic 6.0**
- **Products** traded included Swaps, Options, Spread Options and Hybrids for Oil, Natural Gas, Base metals, Power and Agricultural.
- **Models** used: Black-Scholes, trinomial trees, asians approximation, Adesssi-Whaley, Longstaff-Schwartz and Monte Carlo.
- The commodities trading system includes trade capturing, pricing, risk calculation, PL eod reports, market data interfaces. Designed and implemented the **PL explain system** for the commodities desk.
- Implemented in **C++** the **commodities baskets (GSCI, DJAIG, etc)** risk decomposition and optimized numerical algorithms for hedging and risk calculations.
- Developed support functions in **Excel VBA** for commodities and equities financial products Excel add-ins.
- Architected and programmed the **Reuters** real time market data interface part of the **equities exotics** system using **SSL API** together with component availability in Excel also.

References: Available upon request.

A N I S H G H O S H, F R M

211 West and 108th Street, 52, New York, NY 10025 • 917-960-0892 • g.anish.06@gmail.com

SUMMARY

3+ years in consumer finance risk analytics • Overall 7 years as quantitative risk analyst and trading strategist • GitHub page <https://github.com/indiquant/findl> • Masters degrees in Statistics and Financial Engineering • Statistics and data analysis experience as a risk quant • software development experience in Python and data science experience in Python / SQL / VBA / SAS / R / MatLab / CodernityDB • Machine learning experience

QUANT FINANCE / DATA SCIENCE EXPERIENCE

Societe Generale

Desk Strats / Developer, Equity Exotic Trading

New York, NY

Nov2014-present

Quantitative Analyst Intern, Equity Exotic Trading

Jun2014-Aug2014

- Developed a back testing platform in Python for traders and structurers to research and back test systematic trading strategies with minimal scripting.
- Back tested SG Index trading strategies involving equity and volatility derivatives based on roll methodology
- Ongoing maintenance and improvement of PnL explanation tool and PnL explain methodology
- Leveraging Python / VBA / .Net framework to link different trading systems to build trading tools

Credit Suisse

Quantitative Risk Analyst

India

Sep2011-May2013

- Back tested VaR models on Credit, Cash Equity, Commodities and FX portfolios

- Validated economic risk capital models for credit portfolio and lending portfolio. Implemented CreditRisk+II, MC and MCMC algorithms in VBA and/or R.

HSBC

Quantitative Credit Risk Analyst

India

Jul2008-Sep2011

- Modelled PD, EAD and LGD for cards and personal loans portfolio

- Calculated provisions and net credit loss across different delinquency buckets. Conducted use tests using Basel II parameters in credit strategies as part of regulatory requirements.

- Analysed vintages and historical delinquency of cards and loan originations. Modelled expected and unexpected loss driven by credit-worthiness measures. Extensively used SAS and SQL to pull and process large data sets.

EDUCATION

Columbia University

New York, NY

Master of Science in Financial Engineering

Jul2013-Aug2014

Courses: Statistical Machine Learning, Continuous time asset pricing / stochastic calculus, Term Structure, Computational Methods for pricing in C++, Optimization Techniques, C++ / Python / SQL, Monte Carlo

Indian Statistical Institute

India

Master of Statistics (Mathematical Statistics and Probability) First Class

Jul2006-May2008

Bachelor of Statistics (Honors) First Class

Aug2003-May2006

Courses: Statistical Computing, Pattern Recognition and Image Processing, Time Series, Graph Theory and Combinatorics, Optimization Techniques.

PROFESSIONAL QUALIFICATIONS AND ACADEMIC AWARDS

FRM certification awarded by GARP

US, Apr2012

NBHM Scholarship (National Board of Higher Mathematics) funded by the Department of Atomic Energy to pursue Master of Statistics at Indian Statistical Institute

India, Jul2006-May2008

CODING SKILLS AND OTHER INTERESTS

Programming: Python, C++, SQL, Excel-VBA, R, MatLab, SAS, CodernityDB, GitHub

Interests: Soccer, Music, Films

Naresh K. Gurbuxani

355 Crest Road
Ridgewood, N.J. 07450
Phone: 917-593-0638
email: naresh_gurbuxani@hotmail.com

Professional Experience

CREDIT SUISSE, NEW YORK

- 2009-now Director, Market and Liquidity Risk Management
2005-2009 Director, Fixed Income Division, Sales and Trading
2000-2004 Vice President, Product Control, Valuation Risk
1998-2000 Assistant Vice President, Product Control, Valuation Risk

MARKET AND LIQUIDITY RISK MANAGEMENT

Current

Head of Value at Risk (VaR) and Economic Risk Capital (ERC) modeling for securitized products
Regional head of VaR methodology in Americas

- Developed VaR and ERC models for Agency-backed and private label Residential Mortgage Backed Securities (RMBS), Commercial Mortgage Backed Securities (CMBS), and Asset Backed Securities (ABS)
- Prepared documentation consistent with SR 11-7 standards
- Developed time series construction methods for VaR models
- Developed ongoing monitoring metrics for VaR and ERC models
- Worked with model risk to complete model validations
- Prepared regulatory submission materials
- Preparing for Fundamental Review of the Trading Book (FRTB)
- Chair, US Model Performance and Approval Committee
- Coordinated general market risk application for intermediate holding company (IHC)
- Coordinated responses to matters requiring attention (MRAs)
- Supervise New York staff

Previous

Market risk manager, Agency-backed securitized products

Market risk manager, interest rate products

- Developed risk limit framework in collaboration with trading
- Weekly meetings with traders to review risks, revenues, and market developments
- Deep dive analyses to identify and measure risks not included in regular reports
- Identified pricing model limitations and worked with analytics to enhance models
- Presented risk reports to trading, senior management, and regulators
- Supervised risk management staff

FIXED INCOME DIVISION

Structurer, interest rates exotics trading

- Developed asset and liability side trade ideas for financial institutions
- Prepared sales write-ups and presented to clients
- Produced attributed sales of over \$10 million per year
- Developed ideas to reduce bank's risk weighted assets (RWA)

PRODUCT CONTROL

Manager, valuation risk

- Developed price testing methods for indirect pricing inputs (e.g., volatility, volatility skew, and mean reversion speed) for equity, foreign exchange, and interest rate derivatives
- Developed policy document and hedge effectiveness testing applications for FAS 133
- Reviewed models used in trade bookings, leading to revisions of several \$ million
- Supervised valuation risk staff

ARTHUR ANDERSEN, NEW YORK

1997-1998 Consultant

1996-1997 Analyst

Consultant, derivatives and treasury risk management

- Reviewed VaR models of banks
- Tested derivatives pricing as part of bank audits

Education

GMAT SCORE: 770

GRE SCORES: analytical 800, quantitative 800, verbal 750

2006	MASTER OF SCIENCE IN COMPUTATIONAL FINANCE Carnegie Mellon University, Pittsburgh, PA Courses in stochastic calculus, statistical inference, simulation, time series analysis, scientific programming in C++, risk management, options and derivatives pricing, and financial engineering
1996	MASTER OF BUSINESS ADMINISTRATION University of Rochester, Rochester, NY Concentrations in finance and economics Received the Olin Fellowship of the University of Rochester Elected to beta gamma sigma honorary society
1992	POSTGRADUATE DIPLOMA IN MANAGEMENT Indian Institute of Management, Calcutta, India Concentrations in economics and operations Received the Bharat Chamber of Commerce Medal
1990	MASTER OF TECHNOLOGY IN ELECTRICAL ENGINEERING Indian Institute of Technology, Bombay, India Received institute fellowship to cover tuition and living expenses

Computing Skills

R, SQL, C++

Last updated: February 15, 2017

Fang Hao

Long Island City, NY 11101

terrihaochina@gmail.com

716-352-5481

Professional Skills

- Quantitative Model Validation on Credit Risk Models (Basel and CCAR Models) and AML Models (i.e. Anti-Money Laundering Models)
- Thorough knowledge in statistical analysis and modeling methods: Generalized Linear Regression, Logistic Regression, Regularized Regression Models, Model Selection and Validation, Statistical Hypothesis Testing, Mixed-Effects Model, Multiple Comparisons.
- Proficiency in machine learning algorithms: Random Forest, Convolutional Neural Networks, Support Vector Machine, Principle Component Analysis, Recommender Systems, Clustering.
- Experience of statistical modeling processes including data preprocessing, feature engineering, exploratory data analysis, model fitting, graphical presentation and reporting.
- Thorough knowledge in experimental design: Complete Randomized Design, Factorial Design, Fractional Factorial Design, Complete/Incomplete Block Design, Response Surface Design.
- **Programming:** R, SQL, SAS (Base Certification), Python.
- **Softwares:** LATEX, Microsoft Office (Word, PowerPoint and Excel).
- Proficiency in presenting analysis results through PowerPoint seminars, poster presentations and journal publications.

Professional Experience

- **Citi** Long Island City, NY
Model/Scoring/Analysis Analyst 4 (Assistant Vice President) 2015 – present
 - Worked in Credit Risk Model Risk Management - Validation of CCAR 2017 and Basel Models;
 - Worked in AML Models Risk Management - Validation of AML Models;
 - Involved in Citi's initiative to enhance the existing Model Risk Management work framework;
 - Prepared documents for mandatory review by External regulatory bodies and Internal Audit.

Education

- **State University of New York at Buffalo** Buffalo, NY
Master, Biostatistics 2013 – 2015
- **Roswell Park Cancer Institute, SUNY at Buffalo** Buffalo, NY
Ph.D., Molecular Pharmacology and Cancer Therapeutics 2006 – 2012
- **Nankai University** Tianjin, China
Bachelor, Biotechnology 2002 – 2006

Project

- **Graduate Project** SUNY at Buffalo
• *Novel Application of Recommender Systems on heart disease risk prediction* 2014-2016
 - The project led to one journal publication;
 - Built prediction models through user-based collaborative filtering, random forest and KNN;
 - Optimized data preprocessing procedure to improve model accuracy;
 - Implemented parallel computing to linearly decrease the execution time;
 - Determined the capacity of different learning algorithms to handle missing values while maintaining prediction accuracy.
- **Kaggle Competition Project** SUNY at Buffalo
• *Driver Telematics Analysis initiated by AXA Group* 2014-2015
 - Engineered 58 features from raw data, including speed, acceleration and heading angle by percentile, total time and distance travelled, and a series of further-derived features;
 - Built a "telematic fingerprint" model for anonymized drivers through an ensemble of weakly supervised random forest models;
 - Predicted the probability of a specific trip being made by the driver of interest using the "telematic fingerprint" model with 87.3% accuracy (top 13% ranking).
- **Kaggle Competition Project** SUNY at Buffalo
• *Facial Keypoints Detection through Deep Learning* 2015
 - Building a convolutional neural net to predict the positions of facial keypoints on images;
 - Learned a model with 3 convolutional layers, 3 max-pooling layers and 2 full-connected layers;
 - Improved model accuracy through data transformation, random dropout of feature detectors and training specialists;
 - Increased learning efficiency through changing learning rate and momentum during parameter optimization, early stopping and supervised pre-training;
 - Implemented the model through Library Theano, Lasagne and CUDA on GPU.
- **PhD Research Project** Roswell Park Cancer Institute
• *Cancer Biology, under supervision of Dr. Jennifer D. Black* 2007-2012
 - Performed data processing and statistical hypothesis testing in analysis of mRNA expression and promoter activity at molecular level;
 - Initiated an analysis of high throughput miRNA microarray expression profile associated with colorectal cancer;
 - Discovered the reverse correlation between proteins PKC and Id1 in colorectal cancer;
 - Identified the bimodal regulation mechanisms of protein cyclin D1 by PKC in colorectal cancer.

Publications

- Hao, Fang, Blair, R. H. (2016). A comparative study: classification vs. user-based collaborative filtering for clinical prediction. *BMC Medical Research Methodology*, 16(1), 172.

- Hao, Fang, Kumar, S., Yadav, N., and Chandra, D. (2014). Neem components as potential agents for cancer prevention and treatment. *Biochimica et Biophysica Acta (BBA)-Reviews on Cancer*, 1846(1), 247-257.
- Hao, Fang, Yadav, N., and Chandra, D. (2013). Targeting Cellular Signaling for Cancer Prevention and Therapy by Phytochemicals. In *Mitochondria as Targets for Phytochemicals in Cancer Prevention and Therapy* (pp. 219-243). Springer New York.
- Hao, Fang*, Pysz, M. A.* Hizli, A. A.* Lum, M. A., Swetzig, W. M., Black, A. R., and Black, J. D. (2014). Differential Regulation of Cyclin D1 Expression by Protein Kinase C and Signaling in Intestinal Epithelial Cells. *Journal of Biological Chemistry*, 289(32), 22268-22283 (* Equal Contribution.).
- Hao, Fang, Pysz, M.A., Curry, K.J., Haas, K.N., Seedhouse, S.J., Black, A.R. and Black, J.D., Protein kinase C α signaling regulates inhibitor of DNA binding 1 in the intestinal epithelium. *Journal of Biological Chemistry*, 2011, 286: 18104-18117.

Honors

AACR Scholar-In-Training Travel Award	2010
Nankai University Undergraduate Independent Research Grant	2005-2006
Nankai University Undergraduate Fellowship	2002-2006

YI HAO

Phone: (551) 2544621 | Email: haoyi2015@hotmail.com
102 Webster Ave, Jersey City, NJ 07307

EDUCATION

Stevens Institute of Technology

Hoboken, NJ

Master of Science in Financial Engineering, GPA: 3.9/4.0

Awarded Dec.2016

Coursework: Stochastic Calculus for Finance, Pricing, Pattern Designs in C++, Financial Risk Management, Statistical Learning, Portfolio Management, Computational Methods in Finance, and Algorithmic Trading Strategies.

University of California, Los Angeles (UCLA)

Los Angeles, CA

Bachelor of Science in Mathematics/Economics

Awarded Sep. 2013

Coursework: Probability Theory, Linear Algebra, Optimization, Mathematical Statistics Analysis, Statistical Models Finance, Econometrics, Micro/Macro-Economic Theory, Mathematical Economics, Finance, Investment

SKILLS

Financial: Black Scholes, Monte Carlo Simulation, Interest Rate Derivatives, GARCH, CAPM, CDS, CVA, CCAR, VaR/CVaR, Black-Litterman model, Binomial/Trinomial Tree, Modern Portfolio Theory, Kalman Filter

Mathematics & Statistics: Stochastic Calculus, PDE, Linear Regression, Time Series, PCA, Machine Learning

Programming Languages: C++, Python, R, Excel, SQL, MongoDB, kdb+(Q), Stata, LaTex

Languages: Proficient in English, Native in Mandarin Chinese

WORKING EXPERIENCE

Accenture

Stevens Institute of Technology

Robo Advisor, Research & Analyst (project)

Aug. 2016 – Dec. 2016

- Researched Black-Litterman model in predictive regression, ARIMA, EGARCH, and kalman filtering
- Integrated subjective investors' views into the equilibrium capital weighted allocation portfolio
- Optimized the Black-Litterman model with mean-variance optimization to estimate the expected return and risk
- Compared the outputs with benchmark MSCI Emerging market ETF, and built a back test
- Delivered a long-term, low-cost investment strategy after transaction cost, tax loss harvesting

China Everbright Bank

Shenyang, China

Personal Credit Team, Business Department, Shenyang Sub-branch

Oct. 2013 – Jan. 2015

- Analyzed customers' personal credit, including materials authenticity verification, mortgaged property evaluation, and financial situation analysis, to quantify an appropriate amount of loan
- Improved personal credit evaluating model by using discriminate analysis, regression analysis, and mathematical programming

El Camino College Math Study Center

El Camino College, Torrance

Teaching Assistance/ Math Tutor

Oct. 2009 – Dec. 2010

- Assisted the professor to design the study and review plan for the linear algebra course
- Helped the students to understand their math and physics theories in depth to solve the problems

ACADEMIC EXPERIENCE

Design Patterns and Derivatives Pricing by C++

Stevens Institute of Technology, 2015

- Programmed a C++ project to automatically place trades by receiving the signal of trading and strategies
- Connected design patterns and calculations of derivatives pricing, such as the Bridge, Singleton, Decorator, Template, and Strategy

Stock Selection and Optimal Portfolios Construction by R

UCLA, 2013

Statistical Models- Finance Coursework

- Constructed optimal portfolios in different models, such as Single Index Model, Constant Correlation Model, multi-index model, and etc., and tested the portfolio performance
- Calibrated the models with the mean variance, and compared them to the benchmark S&P 500

MARK DAVID HOEPLINGER

244 E. 26th St. Apt #3
New York, NY 10010

mhoeplinger@post.harvard.edu

203.610.5382

PROFESSIONAL EXPERIENCE

Credit Suisse

Market Risk Analyst, Leverage Finance Primary

New York, NY

August 2016 – December 2016

- Conducted deal-oriented analysis on syndication and bridge loans (revolvers, term loans, ABL's, secured notes) for the primary market business (M&A and LBO transactions)
- Liaised with the front office to obtain deal-level information as inputs into the risk model, such as changes in deal stage (from credit approvals through deal commitments, syndications and allocations), as well as transaction details (credit ratings, covenants, price-flex, amounts over the hold)
- Modeled scenarios such as Severe Flight to Quality and Extreme Event impacts on the leveraged loan portfolio
- Monitored primary market news and conducted weekly meetings to review market activity and the state of the portfolio

Credit Suisse

Market Risk Analyst, Corporate Bank

New York, NY

April 2015 – September 2016

- Designed, constructed, and maintained a robust financial model for monitoring and explaining credit exposures. Presented weekly results to senior management.
- Programmed a process control panel using VBA to automate daily, weekly, and monthly reporting processes
- Analyzed results for daily, weekly, and monthly production cycles for certain (Risk Based P&L and Economic Risk Capital) databases for the Corporate Bank lending portfolios, and led weekly presentations to senior management

GE Capital

Interest Rate Risk Analyst, Balance Sheet Modeling

Stamford, CT

July 2014 – March 2015

- Ran monthly production cycles for certain (France and UK businesses) BancWare ALM models
- Reconciled drivers of (interest income and valuation) sensitivity in various interest rate environments (shocks, ramps, crisis)
- Fulfilled ALM, Market Risk, and Liquidity requests for supporting analysis

J.P. Morgan

Graduate Intern, Financial Reporting

Boston, MA

June 2014 – July 2014

- Built robust financial statement variance model using advanced excel functions

Construction Delivery Group

Analyst

Cambridge, MA

August 2012 – May 2013

- Performed strategic analyses, researched industries, M&A trends, and analyzed public company financial statements

ORGANIZATIONS AND TRAINING

Credit Suisse Holiday Charity Initiative

CRO Captain & Committee Member

New York, NY

December 2015

- Led the CRO division to win first place in a participation-based competition amongst all New York divisions

Veritas Financial Group

Member, Private Equity Track

Cambridge, MA

February 2014 – May 2014

- Attended Investment Banking and Private Equity presentations and lectures at the Harvard Business School

Investment Banking Institute

Intensive 4-week financial modeling program

New York, NY

June 2013 – July 2013

- Built (i) comparable public company (ii) precedent transaction and (iii) DCF analyses.
- Built fully-integrated financial projection models, accretion/dilution merger models, and ran operational and capital scenarios

EDUCATION

Harvard University

Master of Liberal Arts, Finance GPA: 3.44/4.00

Cambridge, MA

May 2014

- Degree Highlights: Financial Statement Analysis, Investment Banking, Corporate Finance, Business Analysis & Valuation

Fairfield University

Bachelor of Science, Business Administration GPA: 4.00/4.00 Cumulative GPA: 3.43/4.00

Fairfield, CT

May 2012

- Summer 2011 Global Immersion Program: English, Philosophy, Religious Studies abroad in Rennes, France

OTHER INFORMATION

Languages: English, Mandarin Chinese

Computer: MS Excel: VBA, Macros, Financial Modeling, MS PowerPoint, MS Access, Bloomberg

Yunqing (Vince) Hu

150 E 57 St, New York, NY, 10022 | yunqing.hu@yahoo.com | (732) 421-2239

OBJECTIVE	PhD candidate with solid mathematical skills and quantitative training. My expertise includes statistical modeling, machine learning, market and credit risk modeling, derivative pricing, and Monte Carlo simulations.	
EXPERIENCE	State Street <i>AVP, Quantitative Analyst</i> (Jan 2016 – Present) <ul style="list-style-type: none">■ Research and develop trading strategies for equity portfolio rebalancing and FX hedging■ Validate portfolio construction models, including dynamic allocation index and inflation-managed equity index■ Perform statistical analysis including logistic regression, ridge/LASSO, time series forecasting and causality tests■ Program in SAS, R, and MATLAB for modeling and analyzing large datasets KPMG <i>Quantitative Associate</i> (Jan 2015 – Jan 2016) <ul style="list-style-type: none">■ Validated methodology and test market and credit risk models, including: IRC (Incremental Risk Charge), CRM (Comprehensive Risk Measure), CVA/FVA/XVA, and VaR■ Developed CCAR PPNR model to forecast capital market revenue and expenses under stress testing scenarios■ Conducted research on financial statistical methods, including: Least Square Monte Carlo, multi-factor model, Merton's model, Gaussian copula, PCA, and etc.■ Valued derivatives and other complex financial structures across equity, fixed income, foreign exchange and commodities asset classes, and calculate CVA of OTC traded products Citigroup <i>Quantitative Consultant</i> (Aug 2014 – Jan 2015) <ul style="list-style-type: none">■ Validated counterparty credit risk model and retail credit loss forecasting models (PD/EAD/LGD)■ Performed logistic regression and time series analysis on loan level data and macroeconomic data to predict roll-rate Markov transition matrix for mortgage portfolio BNY Mellon - ConvergEx Group <i>Financial Engineer Intern</i> (Jun 2013 – Aug 2013) <ul style="list-style-type: none">■ Performed analysis of market microstructure and incorporated analyst ratings to predict stock movements■ Developed equity trade execution algorithms by combining types of orders to reduce execution cost (VWAP) significantly for hedge funds and other institutional investors■ Programmed in Q/kdb+ for querying and analyzing massive high-frequency data, model validation and calibration	New York New York New York New Jersey
EDUCATION	Rutgers University <i>MS, Financial Statistics and Risk Management</i> (Sep 2012 – May 2014), GPA 4.0 <ul style="list-style-type: none">■ Finance: derivative pricing, fixed income, structured product, risk management, Greeks and sensitivities■ Statistics: stochastic calculus, regression, time series, PCA, Monte Carlo simulation, machine learning Nanyang Technological University – PhD Candidate of Mathematics (Aug 2010 - Jun 2012) Soochow University – BS, Statistics (Aug 2006 - Jun 2010)	New Jersey Singapore China
TECHNICAL	Software: Excel VBA, SPSS, Bloomberg Terminal	
SKILLS	Programming: C, C++, Java, R, SAS, Q/kdb+, SQL, MATLAB	
OTHERS	FRM Charter holder Passed CFA Level 3	

Shunchao Jia

New York, NY (770) 778-6106

Shunchao.Jia@gmail.com

PROFESSIONAL EXPERIENCE

HSBC

AVP - Quantitative Analyst

New York, NY

August 2015 – Present

- Provide independent end to end model review for multiple business lines such as Balance Sheet Management, Traded Risk Management and Asset Liability Management with R and SAS
 - Net Interest Income (NII) and Economic Value of Equity (EVE) model
 - Portfolio replication model for risk monitoring (PVBP – present value of basis point)
- Provide end to end review for PPNR models with independent testing and documentation
- Provide validation for prepayment model implementation for agency and non-agency products with Polypaths and QRM
- Support business with quantitative analysis, eg: using VBA to perform Monte Carlo analysis for subprime loan valuation.

Wintrust Financial Corporation

Senior Quantitative Risk Modeling Analyst

Rosemont, IL

August 2013 – August 2015

- Built CCAR, DFAST related models using SAS
 - eg: PPNR Model, Loan Credit Loss Model, Loan and Deposit Balance Forecasting Model
- Lead Balance Sheet / Income Statement risk management project with modeling and quantitative analysis
- Built and maintained the Swap valuation tool using VBA and Access
- Conducted regular Loan and Deposit (Core Deposit Intangible and Time Deposit) Acquisition valuation using VBA
- Created the Loan Allocation Model with VBA
- Built the Deposit Decay analysis and update the analysis on regular basis using SAS and R

CME Group

Quantitative Risk Management Intern / Consultant

Chicago, IL

June 2012 - August 2013

- Worked as a quantitative risk management analyst in CME's Risk Research Team
- Back-tested and validated the VaR model for OTC products (Swap, FX Forward and Future) using Matlab and c#
 - Tested risk exposure and market impact using EWMA volatility and non-volatility models
 - Analyzed and compared performance between scaled VaR and non-scaled VaR models
 - Back-tested margin performance using historical data and optimized model parameter for risk coverage
- Obtained, cleaned and combined data from multiple data sources for a complete large data set using SQL
- Generated, optimized and validated scenarios for model stress testing using Matlab
 - Selected significant market movement as stressed scenarios
 - Generated hypothetical stressed scenarios based on historical data
- Prepared Model related documents and worked on client's request
 - Constructed spreadsheet to illustrate margin fluctuation using VBA based on clients' and colleagues' request
 - Wrote the model documentation and prepared model presentation
- Collaborated with IT department to apply risk management margin model from prototype to production

Hold Brothers

Trader

Beijing, China

February 2011 - May 2011

- Executed day-trading under a high pressure and fast pace working environment in US equity market
- Collaborated with colleagues to create trading strategies
- Tested existing trading strategies with Matlab simulation and real trading
- Applied position management strategy to optimize profit and mitigate risk

EDUCATION

Illinois Institute of Technology

M.S. Mathematical Finance

Chicago, IL

August 2011- May 2013

- Projects:
 - Interest Rate Curve Bootstrapping and Interpolation
 - Monte Carlo Simulation for Exotic Option Pricing using Matlab

Beijing Jiao Tong University

B.S. Mathematics

Beijing, China

September 2007 - June 2011

- Finished the senior thesis which is evaluated A level with the topic Synchronization in Fractional Chaotic System
- Served as the Vice President of Student Union of School of Science in Beijing Jiao Tong University

SKILLS

Computer Skills: Matlab, VBA, SQL, R, SAS, QRM, PolyPaths, C#, Python, Bloomberg, Excel, Word, PowerPoint

Kewang Jin, PhD

104-40 Queens Blvd, Apt. 20F, Forest Hills, NY 11375
Phone: (401) 219-0949 • E-Mail: kewang.jin@gmail.com

Working Experience:

Quantitative Finance Analyst (AVP)	07/2015 - present
Bank of America Merrill Lynch, Enterprise Model Risk Management, 1 Bryant Park, New York, USA	
Postdoctoral Research Associate	09/2013 – 07/2015
Department of Physics, University of Illinois at Urbana-Champaign, Illinois, USA	
Postdoctoral Research Fellow	09/2011 – 09/2013
Institute for Theoretical Physics, ETH-Zurich, Zurich, Switzerland	

Education:

PhD in Theoretical Physics	09/2005 – 06/2011
Department of Physics, Brown University, Providence, Rhode Island, USA	

Skills & Experience:

- ✓ Validation of Market Risk Models (including VaR, RWA) for multi-asset class (with focus on Rates/FX, Commodities).
- ✓ Validation of Stress Testing Models under CCAR/DFAST scenarios.
- ✓ Basic understand of Pricing Models (e.g. yield curve, SABR, etc).
- ✓ Basic programming skills in C++, Python, R, VBA, Matlab.
- ✓ Professional, self-motivated, well organized and detail-oriented.
- ✓ Great communication skills, talents to explain complicated concepts in simple terms.
- ✓ Passed CFA Level I exam in June 2014.

Work Eligibility:

U.S. Green Card

Academic Awards & Achievements:

- Anthony Houghton Award (Excellence in Theoretical Physics)
Brown University, Providence, RI, USA, 2011
- Galkin Foundation Fellowship
Brown University, Providence, RI, USA, 2009-2010
- 16 published papers in peer-reviewed journals, with 700+ citations

Rohan Kumar

283 Griffith Street. New Jersey, NJ 07307 Ph. No. 630-805-4528 rohandhn@gmail.com

Educational Qualifications

- **Master of Science in Finance**, IIT Stuart School of Business, Chicago, IL (2015)
 - **Concentration:** Risk Management, Corporate Finance
 - **Relevant Coursework:** Financial Modelling, Statistics Analysis in Financial Market, Math with Financial Application, Valuation/Portfolio Management, Financial Statement Analysis, Investment Banking, Future/Option/OTC Derivatives, Market Risk Management, Credit Risk Management, Corporate Finance, Model For Derivative. Monte Carlo Simulation, CCAR, PPNR forecasting, Downside Risk Management, Fat Tail distribution analysis.
- **B.E. Mechanical Engineering**, Manipal Institute of Technology, Manipal, India (2005)
 - **Relevant Coursework:** Engineering Mathematics, C, Operation Research, Engineering Economics, Project Management

Technical Skills

- Microsoft Word, Excel, PowerPoint, SAS, Matlab, VBA, SQL, Python, Bloomberg Terminal
- SAS Skills: SAS/BASE, SAS/ADVANCED, SAS/GRAFH, SAS/ACCESS, SAS/MACRO, SAS/SQL, SAS/ODS, SAS/STAT, SAS ENTERPRISE GUIDE, SAS FORECAST STUDIO.
- Operating Systems: Windows.
- Languages: SAS, R, MATLAB.
- Databases: Oracle, Microsoft SQL Server.
- Tools: MS Office, Advanced Spreadsheets (Pivot Table, Formulas, Chart, Filter, V-lookup etc.), Power Point, Excel/VBA, Outlook.
- Math&Stats: Linear Regression, Logistic Regression, Time Series Analysis, Forecast Modeling ,Hypothesis Test, Analysis of Variance (ANOVA), Stochastic Calculus, Numerical Analysis, Portfolio Management, Econometrics.

Professional Experience

CRISIL Global Research & Analytics, NY, US

(Aug'15 – Present)

A S&P Global Company

Quantitative Analyst

- Worked with the Global Wealth Investment Management Group of a large consumer bank to validate credit/marketing models; Wrote and reviewed model validation reports as per bank standards and regulatory guidelines outlined in SR 11-7.
- Worked with the Global Country Risk and Strategy Group of a large investment bank for their CCAR 2016 submission to build macroeconomic models for forecasting realized volatility for country-specific risk factors covering US, UK, Europe, Japan and Emerging Markets.
- Developed and documented time series regression models using low frequency realized volatility data as a target variable(s) and macroeconomic/financial variable(s) as predictor variables for CCAR and Dodd-Frank Stress test. Analyzed large data sets consisting of millions of records and applied procedures such as PROC REGRESSION, PROC ARIMA and other statistical calculations.
- Wrote technical documentation (based on Bank's Model Risk Management standards) of the realized volatilities model.
- Communicated the stress test process and scenarios results to the concerned department for calculation of RWA which are used for determining the capital adequacy ratio for the Bank.
- Created SAS data set by extracting data from data base management and Excel from where forecasted data used for 2016 CCAR and Dodd-Frank stress test.
- Implemented the variable selection and transformation by SQL, SAS/Base and SAS/Macros.
- Used Output Delivery system(ODS) facility to direct SAS output to RTF, PDF and HTML files.
- Implemented the variable selection and transformation by SQL, SAS/Base and SAS/Macros.
- Built customer data summary reports using PROC SUMMARY, PROC MEANS, PROC FREQ and GCHART.

Research Analyst

- Performed Monte Carlo Simulation with DCF to analyze NPV of the project on excel spreadsheet using Palisade @Risk software.
- Performed Project Time Estimation analysis using Microsoft Project and Palisade @Risk software.
- Documented the DCF and Project Time estimation Analysis procedure and results.

HCL, India

(May'12 – July'13)

Lead Analyst

- Interaction with the client on regular basis to deliver the project before deadline.
- Systematically documented and kept record of the project for third party understanding.

Tata Motors Ltd, Pune, India

(Jan'09 – Nov'11)

Assistant Manager

- Reduced the cost to nearly 0.2-0.3% by regularly implementing the FMEA (Failure Mode Effect Analysis) with the help of risk analysis tools.
- Interacted with vendor and handled a team for the timely and effective execution of the project.

Caterpillar India Design Center, Hyderabad, India

(Dec'07 – Dec'08)

Developer/Analyst

- Worked with well-balanced team and effectively communicated with the onsite team and delivered the Project before time.

Action Construction Equipment Ltd, Faridabad, India

(Sep'05 – Dec'07)

Design Engineer

- Completed analysis and calculation to optimize the weight by 20% and reduced the cost of existing product to 0.8 times the initial cost of production.

Huiyong Liao

47 Southwood Circle, Syosset, New York

214-463-8909

liaohy@gmail.com

SUMMARY OF QUALIFICATIONS

- 9+ years' working experience as a Quantitative Analyst for Equity/Fixed Income.
- 9+ years' programming experience on quantitative library using C++ and Python.
- In-depth knowledge on Interest Rate modeling and Equity's local/stochastic volatility modeling.
- Hand-on experience on implementing Finite Difference method and Monte Carlo method to price hybrid exotic products.
- Self-motivated and result driven with good communication skill with internal/external users.
- Exceptionally trained on Mathematics and Statistics, have B.S., M.S. in Applied Mathematics.

HIGHLIGHTED PROFESSIONAL EXPERIENCE

BLOOMBERG LP, NYC, U.S.A

Financial Engineer

July 2011 – Present

June 2013 – Present

- Prototyped/implemented a systematic Equity Long/Short strategy for a sell side client from the scratch. The project started from collecting fundamental data, designing the periodic rebalancing strategy and running the historical back test to prove the concept. After validating the strategy, implemented an automatic system to rebalance the portfolio at each month and handle relevant corporate actions daily. The strategy has been put into production for 2 years.
- Developed the system to provide the 871m delta equivalent amount calculation and substantial equivalent test service to fund administrators/brokers.
- Implemented python wrappers for various Bloomberg APIs to query Bloomberg data and access various terminal valuation functions.
- Developed an off terminal derivative valuation framework in Python as an addition to terminal functions to support various client requests.
- Providing independent derivative valuation services for buy side/sell side clients. Utilizing the experience on exotic products to answer client's questions regarding market data, valuation and risks.
- Developing off-terminal solutions for new types of derivative valuation. The workflow includes the idea generation, proof of concept, market data collection and pricing engine implementation.
- Providing proprietary market data to Bloomberg derivative data clients. Using statistical methodology to check data quality and clean data before delivery.
- Providing VaR/stress test service for risk management on a large size portfolio based on limited historical data.

Equity Quant

July 2011 – May 2013

- The main quant supporting Bloomberg's convertible bond valuation function OVCV. Have implemented advanced features like conversion ratio reset, Make-Whole offering using Finite Difference method. Also provided fugits like the expected maturity and various probability for better risk management.
- Provided the daily support for equity related functions like OVCV, OVME and OVDV.
- Designed/Implemented the Bloomberg's scenario/stress test API (SHOC) for equity volatility surface for MARS (Multi-Asset Risk System).

MERRILL LYNCH JAPAN SECURITIES, Tokyo, Japan

February 2010 – March 2011

- Provided daily trading/risk management support for the Equity Linked Product desk. Mainly supported Callable Notes and Variable Redemption Notes.
- Implemented finite difference method/Monte Carlo method for long maturity Equity Linked notes based on Equity/IR hybrid model, which outperformed the conventional equity only models.
- Validated and maintained official Monte-Carlo pricing templates for various Equity Linked products traded globally to make sure they are priced consistently across different regions.
- Collaborated globally on developing quantitative library for Equity Linked product's trading and risk management. Projects been delivered included barrier over hedge for exotics products and Greek smoothing

NOMURA SECURITIES, Tokyo, Japan**October 2008 – January 2010**

- Provided daily support for Rates flow trading desk.
- Developed a unified JPY yield curve group using both OIS (TONA) instruments and conventional Libor instruments to provide consistent valuation for basis swaps and IR swaps.
- Implemented a two-factor short rate model to price bond futures based on PCA and non-recombining tree method.

LEHMAN BROTHERS JAPAN SECURITIES, Tokyo, Japan**July 2007 – September 2008**

- Supported Rates flow trading desk and participated the global development of Rates analytics library.
- Provided daily JGB relative value analysis report to buy side client for JGB research and trading.
- Implemented a dual curve methodology based on the cross currency swaps and domestic IR swaps for Asian currencies like KRW.
- Collaborated globally to develop Lehman's Q-Curve analytics, which provides a unified framework for curves with different tenor basis and different cross currency basis.

EXPERTISE/PERSONAL

Mathematics: Stochastic Differential Equation, Financial Mathematics and Numerical Analysis

Electrical Engineering: Digital Signal Processing and Statistical Signal Processing

Programming Language: C/C++, Python, Excel/VBA, Matlab, Bloomberg API

EXPERTISE/PERSONAL

Ph. D., Electrical Engineering, University of Delaware, Newark, DE - 2006

M.S., Applied Mathematics, University of Science & Technology of China, Hefei, CHINA – 2000

B.S., Applied Mathematics, University of Science & Technology of China, Hefei, CHINA – 1997

ACADEMIC ACHIEVEMENTS

4 first authored papers published on IEEE Trans. On Information Theory (one of the best journals in Information Science)

Louie (Ye) Liu (Permanent Resident)

20 River Court Apt 1507•Jersey City • NJ 07310• 626-262-1458•liuye@umich.edu

EXPERIENCE

QMAP- (Bank of America- Global Risk Analytics-Quantitative Projects)

Full time

New York, NY

06/2016-Presents

- Enhanced the PD modeling framework by modeling upgrades/downgrades to states other than default only, by applying single factor Z-shift model (Top-Down model).
- Accessed the feasibility of conditioning transition matrices directly as a function of macroeconomic variables. Performed back testing on Z-scores and PDs.
- Developed different model infrastructures (OOP) in Python and automated the process of compiling documentation in latex.
- Conducted statistical tests to assess the model assumptions in SAS and automated the process of updating corresponding tables in CRE and C&I documents.
- Implemented Staging Engine, PD and LGD frameworks under IFRS9 standards into python (OOP).
- Provided ad hoc analysis to team members as needed.

QMAP- (Bank of America- Model Risk Management)

Internship

New York, NY

06/2015-08/2015

- Established a statistical model to map the Bank's internal rating against issuer credits published by external rating agencies like Moody's. Implemented and validated the model using R.
- Collected and prepared a larger-scale dataset including risk parameters and capital adequacy ratios for the Bank's peers. Designed data-parsing algorithms to retrieve rating data in various structures and formats from online sources using R.
- Applied a Chi-Square test to assess the Markov properties of Rating Transition Probability matrix.
- Generated a professional report and presented results of analysis to the team.

Projects

Image Segmentation

Ann Arbor, MI

04/2015

Group Project

- Designed a classification rule for every pixel segmented from 7 outdoor images using different classification methods and different clustering method such as KNN, Random Forest, K-Means and hierarchical Clustering.
- Compared the classification rules attained by different methods and choose the best by minimizing the test error

University of Michigan, Ann Arbor (Department of Statistics)

Ann Arbor, MI

09/2014-04/2016

Graduate Student Instructor

The 2013 Data-Fest Competition

Los Angeles, CA

04/2013

Team competition

- Analyzed the mass data that came from eHarmony and consisted of 1 million potential matches
- Tried to provide the best insight and communicate that insight for a large, complex dataset within 48 hours
- Fully exercised programming capability in SAS, R and Stata

Stock Selection and Optimal Portfolios Construction by R

Los Angeles, CA

01/2013-06/2013

Advisor: Dr. Nicolas Christou

- Learned several statistical techniques used in investment theory and get hands on experience by applying the various models on real stock market data
- Used Black-Sholes model and subtracted the discounted value of a future dividend from the stock price
- Constructed optimal portfolios in different models, and tested the portfolio performance

Statistical Consulting Project: How Likely Will You Open an Email?

Los Angeles, CA

01/2013-06/2013

Advisor: Dr. Vivian Lew, Client: Andre Hsu

- Dealt with 3 different cases separately with customers demanding and to better serve our client in the future
- Developed 3 simple algorithms to compute the scale (0-10), with larger meaning higher possibility, instead of using statistical models, and then developed a function in R
- Provided client a basic idea about the algorithm to be translated that into his own program's language

EDUCATION

University of Michigan - Ann Arbor | Ann Arbor, MI

09/2014- 04/2016

- Master of Art, Major: Applied Statistics
- Core Course: Applied Statistics, Applied Multivariate Analysis, Theoretical statistics, Statistical Computing, Analysis of Time Series, Methods and Theory of Sample Design, Data manipulation, Categorical Analysis, Survival analysis.

University of California - Los Angeles (UCLA) | Los Angeles, CA

09/2013

- Bachelor of Science, Majors: Mathematics/Economics, Statistics
- Main courses: Linear Models, Mathematical Statistics, Statistical Reasoning, Probability, Statistics Models, Data Analysis and Regression, Practice of Statistical Consulting, Data Mining, Optimization, Linear Algebra, Monte Carlo Methods, Econometrics, Micro/Macro-Economic Theory, Analysis, Advanced Calculus

ADDITIONAL INFORMATION

Certificate: SAS Certified Base Programmer, SAS Certified Advanced Programmer

Computer Skills: R, Python, SQL, SAS, STATA, SPSS

Heather Lu-Lasky

Vice President, CCAR PPNR - Barclays, Global Finance

New York, NY

heather.lulasky@gmail.com - (917) 254 -6819

WORK EXPERIENCE

Vice President, CCAR PPNR

Barclays, Global Finance - New York, NY - June 2015 to Present

- Led a team of four to design, build, and test several PPNR and balance sheet models: worked extensively with the business units, Quantitative Analytics (QA), RWA, Risk, Model Validation, and IT teams to discuss segmentation and key economic drivers, select appropriate variables, and challenge model results. Key models include PPNR and Balance Sheet models for Fixed Income Financing, Equity Financing, Agency Derivatives Services, off balance sheet model (as feeder for RWA), and FRY14A (a.7.b/a.7.c)
- Managed the documentation of several models on the development framework, model descriptions, justification of models, analysis of model output, discussion of model limitations, planned future enhancements, and governance & controls
- Owned the developed models and presented the trial run results to the IHC Forecasting Forum. Conducted in-depth discussions with senior stakeholders regarding model outputs, business intuitions, limitations, as well as potential overlays
- As part of the team, designed and implemented the governance and control framework for the Barclays CCAR PPNR process: ensured that the PPNR process design is in compliance with the requirements such as SR15-18, and that there are sound and consistent controls around the process

Vice President

Client Capital Management - July 2012 to June 2015

- Led the Global Reporting team for CCM which faced off with the business heads and finance senior management (five members in NYC and three in Chennai, India); produced BAU and ad hoc reports that covered all CCM business areas (Portfolio Management, Counterparty Risk Trading, and Conduits) in terms of revenues, balance sheet, RWA, and other supervisory controls; provided in-depth analysis to support business decisions such as asset disposal, streamline trader mandate / loss threshold, and business restructuring
- Managed the US Product Control for Portfolio Management, Conduits, and Barclays Corporation Cash Management (a treasury function); interacted with the front office and key stakeholders on a variety of issues and projects, including regulatory reviews, audits, system enhancements, new product reviews, and major transaction reviews

Vice President, Finance Control

- April 2010 to July 2012

- Assisted with the setting, fine-tuning, and monitoring of various Finance-wide policies such as Split Hedge Policy, Product Control Governance Framework, P&L Explains Governance Policy, and Aged Inventory Reporting Policy
- Performed independent assurance reviews to ensure that standardized controls are applied across asset classes; interface with regulators (SEC, FED, etc.) and auditors to coordinate reviews and deliverables
- Performed deep-dive reviews for cross-asset class control issues such as Barclays Wealth Management sales credit recharge to the investment bank, incorrect FX P&L recognition on AFS assets, etc.

Manager, North America Credit Hybrids Risk & P&L (NA CH)

JP Morgan Chase - New York, NY - May 2007 to April 2010

- Managed the NA Credit Hybrids Middle Office Risk & P&L team of five; supervised the daily P&L production and risk signoff for CDO, high grade, high yield, LCDX indices, and other structured credit derivatives to ensure that results are in line with expectations; supervised the month-end P&L closeout process and reviewed reconciliations and adjustments completed by the Middle Office and Finance, and communicated issues with senior management
- Led various projects for NA CH including Bear Stearns migration and systems integration; performed comprehensive gap analysis to support project goals; managed all cycles of the projects by working in conjunction with the front office, Technology, Finance, Valuation, Legal, etc

Controller, Index Derivatives Trading Desk

Goldman Sachs & co - New York, NY - January 2006 to May 2007

- Produced daily accounting and risk P&L reports for the Equities Derivatives Trading Desk; monitored daily valuation adjustments and compliance with reserve policies; prepared weekly P&L commentary for senior management; performed monthly independent price verification for listed & OTC options, ETF, and structured products; interacted with the trading desk, reporting, and back office to ensure a well-controlled process for pricing the portfolio is in place
- Assisted in new product initiatives by assessing the potential risks and exposures, ensuring compliance with the appropriate accounting & valuation policies, and coordinating with various support groups to ensure correct trade booking

Senior Consultant, Enterprise Risk Services

Deloitte & touche llp - New York, NY - February 2004 to January 2006

- Led multiple Sarbanes-Oxley engagements for several major broker-dealer clients; planned and executed operational, compliance and general computer control reviews; evaluated business processes and tested internal controls on various business areas;
- Performed the SAS 70 internal control reviews for Merrill Lynch's Global Private Client business and Bear Stearns Pricing Direct, Inc; analyzed the control environment, identified deficiencies, and provided recommendations for improvement

EDUCATION

MBA in Classic French Culinary Arts

The International Culinary Center - New York, NY

July 2014

Master of Business Administration in Business Administration

Georgetown University, The Robert Emmett McDonough School of Business - Washington, DC

May 2003

Bachelor of Arts in English

Beijing Foreign Studies University - 北京市

June 2001

French culinary arts

CFA Institute

Lisa Chenying Lu

lisa.chenying.lu@gmail.com (404) 510-6814

SKILL SET

Data Science (Big Data architecture, data visualization, predictive analysis, Python, R, SAS, Excel VBA, Matlab, basic Hadoop)
Financial Engineering (pricing & optimization models for equity, fixed income, currency, mortgage etc. alternative investment)
Risk Modeling (market/credit/counterparty risk, VaR, PD, LGD, EAD, stress testing, CCAR, DFAST, Basel II, Basel III)

EDUCATION

Columbia University	M.S. in Actuarial Science	New York, NY	09/2012 – 12/2013
Agnes Scott College	B.A. in Economics (math)	Atlanta, GA	08/2008 – 05/2011
University of Zurich	Swiss Finance Institute exchange program	Zurich, Switzerland	01/2010 – 07/2010

EXPERIENCE

Bank of America Merrill Lynch	New York, NY
Quantitative Risk Analyst (contractor)	10/2016 – 02/2017

- Developed and executed stress scenarios for counterparty stress testing in Python, analyzing the stress results to support CCAR and corporate enterprise stress testing (EST) for derivatives and fixed income products, including methodology narratives and expert judgment
- Performed counterparty deep-dive investigation analysis for stress scenario results, including interest rate projections, market movements and historical trends; identifying key risk drivers, areas of concentration portfolio segmentation by industry and rating
- Utilized data visualization in Python to deliver methodology-related model development and monitoring documentation for various audiences
- Collaborated with trade analysis team and risk partners on risk reducing actions and make recommendations for risk mitigation strategies, coordinating with tech experts to improve counterparty stress testing framework and platform

Avaya Inc. (IT telecommunication)	New York, NY
Sr. Associate, Data Science	07/2014 – 07/2016

- Designed pricing analytics models with 3D data visualization by Python to support sales teams with an overview in KPI indices; implemented company-wide spending analysis and cooperated with finance reporting team to simplify investment and performance metrics
- Established a new rating system for each single deal; researched the historical data and found the relationship between a deal's status change and macro- & microeconomic indicators; estimated the average time of deals' status change and thus estimate the activity index of a specific region by survival models; forecasted the future trend of a deal's status and rated it from AAA to D, helping the sales team focus on the most active deals
- Conducted business intelligence analytics with marketing teams, generating weekly revenue overview using Excel VBA with predictive analysis and reporting dashboard for senior management; designed dashboard for metrics that align with monthly/quarterly goals
- Developed project plans and defined the project scope, budget and goals, resource requirements, time estimations etc. Monitored implementation, evaluated performance then conducted business intelligence analytics for each deployed project, such as Salesforce research, dashboard design, ad-hoc analysis on Tableau/Oracle's BI Analytics

GE Capital	Stamford, CT
Lead analyst—risk modeling (contractor)	09/2014 – 02/2015

- Supported annual Dodd Frank risk reporting, Basel II, Basel III and CCAR reporting by implementing model validation including data quality check, code debugging and model performance management and conducting risk analytics on sensitivity, accuracy, volatility etc.
- Performed scenario-based energy stress testing with proprietary credit transition model and power plant utilization rate model to estimate the PD, LGD, EAD, upgrade, downgrade etc. and forecast future cash flow as well as capacity factors of a merchant power plant under certain scenario
- Maintained VaR estimation model and credit expected loss model by collecting macroeconomic assumptions underpinning the planning cycle, stressed LGD factor from Basel II and economic research indices from FRED; calculated expected loss and validate all results before sending to senior managers with forward looking information

- Finalized model development and implementation documentations, ongoing monitoring plan by formulating and evaluating econometric credit stress testing specifications for conceptual soundness and stakeholder's model requirements

Akemi Capital (hedge fund)

Investment Research Analyst (part-time)

New York, NY

04/2014 –07/ 2014

- Performed market research and profit and loss analysis for aviation industry investment, distressed real estate investment and fashion industry investment.

The Trustees of Columbia University

Translator & Interpreter

New York, NY

06/2013 – 03/2014

- Translated the "Ciudad Mujer" project plan for the Taipei Economic & Cultural Office and H.E. Ambassador Carlos Garcia of El Salvador when President Ma Ying-Jeou of Taiwan visited New York in 2013 summer

SONY Music Entertainment

Risk Management Intern

New York, NY

01/2013 – 05/2013

SKILLS & INTERESTS

- Arts: Adobe (Photoshop, Premier, After Effects, Illustrator), Logic Pro digital audio workstation, Maya 3D animation
- Language: native Chinese, business level Japanese and German
- World traveler since 21, American Sailing Association-certified sailor, PADI Advanced Open Water diver
- Studied composition and music production at Juilliard School and 3D animation production at School of Visual Arts

Vishesha Patel

856-571-1503 Cell • vishesha221@gmail.com

Experience:

Numerix LLC

Senior Quantitative Analyst

Aug 2014-Present

- Built interest rates, equity and credit models in excel, VBA and C++ to conduct independent tests, helping the end users to benchmark the pricing results. Thus conducted cross platform validation and matched pricing with Bloomberg BVAL, DLIB and other valuation service providers.
- Translated derivatives from term sheets into Numerix valuation systems and performed valuation and risk analysis using different models and methods across asset classes like Fixed Income, Equities, and Credit. Thus demonstrated in depth understanding of exotic, semi- exotic and vanilla products.
- Provided guidance and acted as an expert on various subject matters like using interest rate, equities, foreign exchange models and in using different numerical methods like Monte Carlo, PDE, tree, lattice, knowledge of best market practices in various key areas including market data, structuring, valuation, quantitative advisory services.
- Represented the company and provided simple and to the point communication by clearly defining the requirements of different the development of features between Customers and Internal teams.
- Strong mathematical skills including stochastic calculus, coding numerical methods like Tree, PDE, Monte Carlo simulation, financial modeling, conducted numerous DIY research on quantitative topics for proof of concepts.
- Understanding of counterparty credit risk such as XVAs, Potential Futures exposure, incremental CVA, collateral, netting, CSA, CVA VaR, credit models and market risk such as VaR methodologies parametric, historical, and Monte Carlo, incremental VaR, marginal VaR, stressed VaR, back testing.
- Managed the team of more than 4 quantitative analysts including training them and getting them up to speed, resulting in quick onboarding and easy transition. Mentored and track their ability to contribute to the team and help them learn and expand their skill sets.

Director, Structuring and Pricing Analytics Training

2012-2014

- Headed Numerix's Training Department globally, the primary responsibility includes manage, monitor and deliver solution based customized training to empower the Front, Mid and Back office users with the knowledge of financial engineering and technical skills required to use Numerix Solution Suite.
- Demonstrated expertise in explaining and understanding of highly complex derivative structures, modeling, and pricing wide range of derivative across all asset classes. Deep knowledge on the subjects like - Financial modeling and derivative structuring of FI, EQ, FX, Market Risk: Stress Testing, Yield Risk Report, sensitivity reports, VaR, Credit Risk, Risk Analytics, Stochastic Calculus, Probability Theory, Statistical Mechanics, Numerical Methods and Analysis.
- Direct report to the chief operating officer, thus execute all the projects and professional services with/ or minimal supervision.

- Collaborated and managed projects with deadlines on deliverable, POC, BRDs and FRs with other departments. These projects include working closely with project managers, financial engineers, Developers and Business analysts.
- Developed, packaged and maintained technical and business training courses for both internal and external customers of the Numerix Software Suite of Products; inclusive of the software's user interface, infrastructure, configuration, customization, and programming.

Quantitative Support Analyst Tier I

2011-2012

- Gained in-depth knowledge of Numerix CrossAsset products, Numerix LiquidAsset and Numerix Portfolio. Administered customer issues using CRM software; follow up internally by liaising with financial engineers and the development teams; provided regular updates to customers on open issues. Assisted in the growth and management of our knowledge base for customer self-help.

Stevens Institute of Technology, Hoboken, NJ

Research Assistant, Lecturer

2007-2010

- Developed codes in C++, Mathematica, FORTRAN using numerical methods like Runge Kuta for femtosecond chirped laser pulse and four level systems interaction in Coherent anti-Stokes Raman Scattering microscopy. Analyzed the laser field interaction with matter (dressed states) by incorporating Netlib's Lapack packages.

Education:

Stevens Institute of Technology, Hoboken, NJ

- PhD in Physics, December 2010, Best PhD Thesis Award (GPA: 3.88)
- Graduate Certificate in Financial Engineering, May 2011 (GPA: 4.0)

Skills and Proficiencies

- Programming skills: C++-intermediate/advance, Java-beginner, Python, Matlab, Windows and Linux environments.
- Excellent communication and presentation skills: presented at several international conferences, delivered specialized seminar lectures and conducted trainings in class room type environment and online.
- Excellent people soft skill can work in highly stressful environment can clearly communicate ideas and complex structure across. Self-motivated and quick-learner able to address complex technical challenges, and produce high quality solutions in an efficient and timely manner.

Publications: List available upon request

Awards and Honors

- Numerix –Extra Mile Award 2014
- Best PhD Thesis Award 2011
- Innovation and Entrepreneurship Doctoral Fellow, Stevens Institute of Technology, 2009-2010.
- Associate Adjunct Lecturer, Stevens Institute of Technology, 2009.

Interests and Activities:

- Classical Indian music, cinema art, drawing, photography, racquetball and yoga.

JIAWEI (MICHAEL) PENG

400 W 113TH ST APT. 1431, NEW YORK, NY, 10025 | 1 (929) 990-5610 | jiawepeng0522@gmail.com | linkedin.com/in/pengjw

EDUCATION

Columbia University

Master of Arts in Mathematics of Finance (GPA: 3.9/4.0)

New York, NY

Sep. 2015 - Dec. 2016

- **Courses:** Stochastic Calculus, Time-Series Modeling, Non-Linear Option Pricing, C++ Programming for Quants, Numerical Methods in Finance, Multi-Asset Portfolio Management, Statistical Machine Learning, Risk Management

Major in Mathematics (Exchange Student)

Sep. 2014 - Dec. 2014

Zhongnan University of Economics and Law

Bachelor of Economics in Financial Engineering (GPA: 3.8/4.0)

Wuhan, China

Sep. 2011 - June 2015

- **Courses:** Stochastic Process, Probabilities and Statistics, Derivatives, Fixed Income, Investment, Optimization
- **Honors:** People's Scholarship (2011-2015), Merit Student (2011-2015)

PROFESSIONAL EXPERIENCE

Mommsen Global LLC

New York, NY

Quantitative Analyst Intern

Aug. - Dec. 2016

- Worked with traders to analyze and estimate market impact by translating and replicating the trajectory cost model in academic papers with own orders data; found the optimal execution schedule and reduced implicit costs
- News driven strategy: built a model to exploit the news and explore trading opportunities; fetched and analyzed associated stocks data (intraday price/volume, pre/post earnings) with Python (numpy, pandas, urllib, selenium, bs4)
- Used SQL and Python to extract quotes/trades data from NYSE and conduct liquidity analysis on stocks; applied clustering techniques to group stocks and studied their performance to better enhance the news driven trading strategy
- Created a tool to automatically generate daily performance report and update/backup data using Python and VBA

Industrial Bank Co. Ltd

Shenzhen, China

Summer Intern, Personal Finance and Risk Management Division

Jun. - Aug. 2014

- Provided investment recommendation for clients based on their horizon, liquidity need and risk/return objective
- Researched and analyzed financial reports and daily market updates; built automation to monitor portfolio's P&L, evaluate risk exposure (VaR, CVaR), and generate spreadsheets of performance report with Matlab and VBA

PROJECT EXPERIENCE

Non-Linear Option Pricing (Python)

Jan. - May 2016

- Implemented Tsitsiklis-Van Roy and Longstaff-Schwartz algorithms with kernel/piecewise linear regression to estimate lower bound, and Andersen-Broadie algorithm to estimate the upper bound of American option
- Solved stochastic control problems and HJB equations by Backward SDEs with an application on pricing re-insurance deals with uncertain lapse and mortality using Finite Difference method and Monte Carlo simulations
- Calibrated the Stochastic Local Volatility model to the market implied volatility smiles with Particle method

Factor Based Long-Short Global Tactical Asset Allocation Strategy (Matlab/VBA)

Jan. - May 2016

- Built and back-tested a 2 factor-mimicking portfolio with monthly rebalancing based on value (forward E/P) and momentum (composite of 3-month and 12-month momentum) factors using monthly data from 1988 to 2014
- Orthogonalized the raw single factor portfolios with respect to the global equity portfolio; combined the orthogonal factor portfolios and scaled to 10% ex-ante risk; measured the strategy by realized risk, return and drawdown
- Presented that the combined portfolio outperformed the single-factor portfolios because of higher return-to-risk ratio

High Performance Excel Add-Ins for Quantitative Finance Models (C++)

Sep. - Dec. 2015

- Used C++14 and third party libraries to implement quantitative model and create self-contained Excel add-in
- Designed financial model and Excel add-in for Root finding, Option Pricing with Black-Scholes/Merton, Implied Volatility, Short Rate Model, Monte Carlo Simulation, Variance Reduction and Variance Swap using C++

Fixed Income Portfolio Management (Bloomberg/VBA)

Sep. - Dec. 2015

- Constructed and managed a 500 million virtual fixed income portfolio from a pool of bonds and utilized Bloomberg terminal and Excel to monitor the portfolio's daily P&L to ensure the risk exposure (DVO1, VaR) stay within limits
- Applied hedging strategies by using bonds, futures and swaps to immunize portfolio's duration and convexity

ADDITIONAL INFORMATION

Computer Skills: C/C++ (3 years), Python (3 years), Matlab (4 years), R, Excel(VBA), SQL, LaTeX

Language: Chinese (Native), Cantonese (Native), English (Fluent)

C++ Programming for Financial Engineering certificate granted by Baruch College and Quantnet.com

Passed CFA level III exam and eligible for the CFA charter upon completion of the required work experience

BRYAN RONG

Phone: (718) 687-9686 | Email: bryanrong@gmail.com |

SUMMARY & SKILLSETS

Detail oriented fast learner, able to prioritize and handle multiple tasks simultaneously and expert in process improvement to achieve delivery of outstanding results.

5 years+ solid contribution and diverse background in risk management: **Market risk, credit risk, liquidity risk.**

Strong academic background and analytical, critical thinking and problem-solving skills as follows:

risk assessment, risk management, quantitative modeling, CCAR, VaR calculation, back-testing, portfolio management, pricing financial derivatives and micro/macro economics.

Technical: (Excel, Word, PowerPoint, Outlook, Visio), SQL, VBA, Bloomberg, SAS, MATLAB, Intex, Yieldbook, Ventyx, SNL, Moody's Analytics (Credit Transition Model, Credit Risk Calculator), QRM, Java, Python.

Language: English, Mandarin and Cantonese

EXPERIENCE

Risk Manager

Santander Holding U.S.A. – New York, NY

Mar.2015–Now

- **Risk Modeling,** Develop and implement Liquidity Stress Test models. Coordinate with different business lines for the definition of the Liquidity Stress Test assumptions, propose new stress test scenarios, and analyze results and proposing action plans for Liquidity Management. Develop and implement Regulatory and Corporate Liquidity Policy standards for market risk activities, lead discussions with bank management and Fed, compare Bank risk profile against industry and forecast potential risk impacts. Guarantee the effective continuity of the Liquidity Contingency Plan.
- **Monitoring/Reporting,** Report directly to the CRO and work closely with other market risk specialists in monitoring 20 billion fixed income portfolio exposures (Treasury, MBS, CMO, Municipal Bonds, Corp Bonds.) and controls liquidity risk metrics to ensure they operate within policy guidelines and limits (CCAR).
- **Data Processing,** Assist with the validation, reconciliation and analysis of data, ensuring its accuracy Validate and implement liquidity risk measurement methods. Observe, analyze and implement US regulation and Liquidity Policy Guidelines. Develop effective scenario analysis and stress testing, adding assumptions supports based on statistical and financial modeling Document Liquidity assumptions used in the Bank's Liquidity Model, developing procedures related with daily and monthly liquidity process.
- **Project Management,** Lead different special projects for Market Risk Department, effectively managing cross-functional enterprise-wide teams, monitoring and controlling the project's performance. Plans for, scopes, leads, and communicates findings of Liquidity Risk model observations either internally suggest or made by Model validation or Regulator
- **Presentable Results,** Strong communication skills with the ability to prepare clear communication and confidently present meaningful analysis to senior and executive management level.

Contractor: Senior Risk Consultant

G.E. Capital – Energy Financial Services · Stamford, CT

May. 2014 – Mar 2015

- **Risk Modeling.** Building the regression model to analyze risk exposure based on different stressed scenarios from the ground.
- **Data Supervise.** Lead modeling data capture, gathering, and maintenance in support of modeling databases. Ensures daily data's completeness, accuracy and timeliness, working cross functionally on data reconciliation routines and data integrity initiatives. Work proactively and closely with risk analytics managers to improve business risk analytic and data gathering processes.
- **Risk Control/Management.** Prepare performance reports on valuation analysis, variance analysis, outcome analysis, back-testing analysis. Delivery portfolio risk reporting, valuation analysis to CRO's and HQ (Stress Testing to meet CCAR Regulations)
- **Methodology Improvement.** Assist quants in new modeling sensitivity development and impact timing analysis as required by HQ Enterprise Stress Testing's procedure; and update the analysis, reporting, research and methodology. Support a Quantitative Methodology leader on formulating and evaluating alternative credit risk methodologies or econometric credit stress testing specifications for conceptual soundness and stakeholders' model requirements.

**Officer / Fixed Income Trading - Risk/Regulatory Capital Reporting,
Citigroup · 388 Greenwich St., New York**

Feb. 2013 – May.2014

- **Risk Analysis Report.** Generate daily risk report (Excel/VBA), analyze and monitor VaR and limits. Distribute report to each trading desk. Report to risk manager with impact.
- **Regulatory Capital Basel Report.** Generate daily Basel report, analyze the daily difference, monitor for threshold breaches. Update stale investor report. Monitor and help maintain database integrity and accuracy of business data. Distribute report to each trading desk. Report to compliance officer with impact.
- **Citi Global Securitized Market Trading Support - MBS, ABS, CMO, CDS, PRIME, SUB-PRIME, SPECPOOL.** Maintain/Support business continuity. Monitor application production environment, deliver methodology improvements to developers (or development community) and work with them to resolve issue impacting the business in a timely manner. Coordinate and execute urgent business intraday data-break or data-error fix in SQL database. Record issues and generate weekly/monthly support statistics (or metrics) to management team.

Contractor: Market Risk Analyst

Bank Of America Merrill Lynch · 1 Bryant Park, New York

Jan. 2012 – Feb. 2013

- Focused on VaR scenario calculation, stress test and back testing of trading strategy. Prepared and distributes fixed income trading desk daily risk-management reporting. (FICC, Treasury, Commercial paper, Municipal bond.)
- Methodology improvement, automated daily risk comparison (T-0 vs. T-1) report on VBA.
- Review quality of data entry, loads, transformations, extractions, merges, or other production jobs (SQL). Maintain data standards, definitions, and models (e.g. data dictionary, organizational data model. This may also include any checklists, guidelines, manuals, templates, forms, etc.)
- Perform monthly position reconciliations between risk and finance systems.

Business Analyst

CA Technologies · Plainview, NY

May. 2007 – Jan. 2009

- Analyzed market business approaches and planned organization's strategic business needs.
- Forecasted seasonal revenues about 2 millions/season from data processing in Microsoft Excel (pivot table).
- Budgeted commercial strategies, average \$20,000-\$50,000. Invented a new commercial plan (outdoor demonstration at high density shopping spot) and increased weekend sales by 10%, \$20,000.
- Managed primary commercial accounts. Built strong relationships with primary account holders

EDUCATION

M.S. in Quantitative Finance

State University of New York, Stony Brook University

Leadership: Executive Committee Member of Quantitative Finance Club at Stony Brook

Co-Founder, Vice President of Leadership & Golf Club at Stony Brook University

Double B .S. in: Applied Mathematic, Economics

State University of New York, Stony Brook University

Honors: National SMART grant scholarship Recipient

Zarrar Said

400 E 71st Street apt 15I, New York, NY 10021, 202-569-9366 zarrarsaid@gmail.com
US Citizen

EDUCATION**THE GEORGE WASHINGTON UNIVERSITY****Master of Science in Finance**

Accelerated, Intensive one year program

Washington, DC

July 2010

THE OHIO STATE UNIVERSITY**Bachelor of Science in Business Administration**

- Majors: Finance, Information Systems

Columbus, OH

August 2003

EXPERIENCE**Vice President – Head of Model Risk and Capital Stress Testing (DFAST)**

Dec 2014 - Current

Sumitomo Mitsui Banking Corp – Model Risk Management

New York, NY

DFAST Stress Testing and Model Governance

- In charge of developing DFAST Capital Stress Testing framework, loss forecasting and PPNR models and associated calculations for FRY 16 reporting.
- Developed team for stress testing and model risk framework, including hiring and training.
- Heading teams that develop models for structured products, ALLL models, PD/LGD, and EAD methodologies.
- Drafted policies and procedures, developed governance structure for model risk management including model documentation in accordance with regulatory requirements.
- In charge of setting up model inventory system that incorporates all subsidiaries for Bank Holding Company.
- Responsible for reporting model governance and DFAST results to US CRO as well as Japanese senior management.

Manager

Nov 2010 – Dec 2014

PricewaterhouseCoopers LLC – Fixed Income, Structured Finance, & Analytics Advisory

New York, NY

Model Development & Validation

- Led teams developing/validating loss forecasting/econometric models for fixed income and consumer products. Advised clients on model development/validation/governance standards that comply with applicable Fed and OCC regulatory guidance. Participated in the development and/or review of model validations for regulatory stress testing at international financial institutions, which covered all major consumer and corporate debt structures (for CCAR and DFAST) as well as liquidity risk management practices.
- Provided strategic direction and project management for banks on the implementation of risk structure. Also produced concise and comprehensive documentation of complex quantitative approach to senior management.
- Managed a team directly, validating and/or developing restructured reserves credit risk models for major international bank. Responsibilities included delivery of validation documentation in compliance with bank's regulations as well as maintaining relationships with bank management.

Fixed Income Valuation

- Managed teams for valuation services for financial institutions for derivative, asset backed, and mortgaged backed securities and CDO, CLO, Municipal & Corporate bonds. These services include a review of client's process, methodology, assumptions and governance framework related to the valuation of fixed income securities and providing assessments of value for non-traded or non-standard asset types.
- Developed and managed models for valuation processes of structured securities as well as unique fixed income bonds.
- Authored articles on fair value and research on various asset types for standardized valuation approach.

Research Analyst

Summer – 2010

International Finance Corporation (IFC, World Bank) – Integrated Risk Management

Washington, DC

- Worked with integrated risk management head to develop simulations for capital requirements for financial institutions. Models used involved VBA, Excel and Monte Carlo Simulation.
- Developed models and report for analyzing effects of Basel III switch on capital requirements. Used Vector Auto Regression as well as Logistic Regressions to simulate Probabilities of Default.

Resident Vice President

July 2007- August 2009

Faysal Bank – Risk Management

- Worked with traders and portfolio managers for developing efficient risk management tools. Developed new risk and reporting structure. Developed metrics that reported revenue, P&L drivers, market commentary and portfolio segmentation.
- Supervised research and development of quant models for fixed income securities using SAS and Excel including roll rate models and PD (Point in Time) models for Basel reporting.
- Managed large datasets and stratified portfolios based on strategic segmentation. Further, used segmentations to identify risks in certain roll rates in consumer portfolios.

Relationship Manager

November 2003- June 2007

Dubai Bank - Corporate & Investment Banking Group

- Constructed integrated Excel models for debt and equity financing, and project financing using DCF, industry multiples, and NPV and IRR dealing with real estate sector.
- Developed research and financial modeling for JV equity partners. Trained management associates for credit analysis, M&A modeling, and other transactional responsibilities.

- Constructed credit proposals for corporate clients, including due diligence, with comprehensive financial analysis, valuations, projections, and modeling. A thorough market research and assessment of client's credit risk measured against in house risk acceptance criteria.

PUBLICATION

"Mitigating and Smoothing of Default Rates: Models of Probability of Default Using Hodrick-Prescott Filter", Research in Progress for Journal of Applied Sciences, July 2010.

SCHOLARSHIP/AWARDS

Academic Scholarship: *George Washington University, 2009/2010:* Tuition Award covering 50% of tuition from Finance Dept.

Academic Scholarship: *The Ohio State University, Fisher College of Business, 2000-2003 :* 100% tuition award given based on high academic performance.

Jianfeng(Jeff) Shan

7 Dater Ln, Saddle River, NJ 07458
(646)-812-1688, alpinistshan@gmail.com

WORK EXPERIENCE

Bank of America Merrill Lynch

Assistant Vice President, Jan.2015-present, New York, NY

Rated as 'Exceed Expectation' (top 5%) for two consecutive years in 2015 and 2016 annual performance review.

- Counterparty portfolio management of BAML's US and EMEA OTC transactions, across all desks in FICC and structured equity trading, covering all products such as interest rate swaps and swaptions, XCCY swap, FX swap, CDS, commodities products, etc.
- Developed the market risk based model (according to ISDA requirement) in python to calculate initial margin for various OTC products, including IR, FX, credit, equity and commodity's Delta/Vega/Gamma risks.
- Built a robust system in python to transform risk data from all front office risk teams into standardized risk data format.
- Ad hoc analysis of IM, MVA(market value adjustment), forward IM, funding cost impact of new trades to existing portfolios for various desks (rates, EQ, credit, CM desks, etc.), worked closely with traders and tech teams, the quality of my work, sharp thinking and creativity was uniformly recognized by traders and senior desk managers.
- Responsible of daily IM and funding cost reporting to finance desk, which was charged to 500+ desks on daily basis.
- Participated in industry wide FX optimization, to book live trades with other counterparties to lower industry wide FX IM.
- Managed a group of 3 colleagues in NYC, 2 colleagues in India, assigned tasks and priorities efficiently.

Moody's Analytics

Associate, Lead Risk Consultant, Apr.2012-Dec.2014, New York, NY

- Lead consultant of CCAR PD/LGD stress testing for: HSBC's Latin America C&I portfolio, Union Bank's C&I portfolio.
- Lead consultant for the PD model of RBS's US commercial real estate portfolio.
- Lead consultant for the PD models and rating score cards for DTCC and Bank Leumi.

Fitch Solutions, Inc.

Analyst-Quantitative Financial Research Group, Jan.2011-Apr.2012, New York, NY

- Developed Fitch's global quantitative CDS spread predicting model using SAS and Matlab.
- Developed Fitch's US banks, credit unions and thrifts quantitative rating model using SAS and Excel VBA.

FBR Capital Markets & Co.

Analyst-Credit, Convertibles, Options & Risk Technology, Jun.2010-Dec.2010, New York, NY

- Front office quantitative development in C#, developed: bond's price, duration, convexity and yield calculator; option pricing models including Black-Scholes, binomial tree, finite difference models, and option Greeks calculator; efficient numerical methods for integration, matrix manipulations, random variable generator and root solver.

The Midway Group, L.P.

Quantitative Analyst (Intern), Mar.2010-Jun.2010, New York, NY

- Loan level data research, built regression models in SAS and Matlab to analyze prepayment speed of non-agency MBS.
- Monitored portfolio duration, leverage, curve exposure, implemented scenario analysis using PolyPaths and Excel VBA.

Chardan Capital Markets, LLC

Investment Banking Analyst, Jan.2008-Jun.2009, Beijing, China

- Created business plan and projected financial statements for 5+ Chinese companies in different industries for potential reverse merger transactions. Participated in the road show of a heavy machinery company in New York.

EDUCATION

The University of Chicago, Chicago, IL, June 2010

- Master of Science in Financial Mathematics

Peking University, Beijing, China, June 2009

- Bachelor of Science in Chemistry, and Bachelor of Arts in Economics

ADDITIONAL INFORMATION

- **Computer skills:** Python, SAS, SQL, C#, Matlab, Excel VBA, R, Bloomberg, MS-Office package.
- **Languages:** Mandarin (native), English (fluent).
- **Interests:** golf, western fine arts, meditation, opera, hiking, sailing, cooking

Muyan Shen

[110 First Street, APT 4A, Jersey City, NJ 07302]
[626-782-3228][muyan.alice.shen@gmail.com]

EDUCATION

Columbia University, New York, NY

M.S.: Operations Research

Coursework:

Stochastic Models, Deterministic Models, Term Structure Models, Credit Risk Models and Credit Derivatives, Structured and Hybrid Products, Machine Learning, Simulation

Jan 2014 - May 2015

GPA: 3.967

University of California, Los Angeles, LA, CA

B.S.: Mathematics/Applied Science

B.A.: Economics with minor in Accounting

Sep 2010 - Dec 2013

GPA: 3.745

WORK EXPERIENCE

Santander Bank, N.A.

New York, NY

Portfolio Capital Analytics Officer III

Jun 2015-Now

- Provided methodological and financial engineer support in RORAC project for commercial and wholesale business units; carried out Cost of Equity analysis for the bank
- Developed economic capital models for credit risk and operational risk in Python and produced capital allocation & profitability analysis quarterly reports using an automated process
- Prepared data for risk parameters' estimation through SQL databases and collaborated with other teams to improve ALLL and FTP methodologies
- Helped with CCAR PPNR modeling for commercial real estate portfolios

Bank of America Merrill Lynch

New York, NY

Global Wealth Management Intern

Jan 2015-Apr 2015

- Collected market data and research materials; conducted portfolio analysis and performance review
- Assisted financial advisors in daily operations and prepared documents for client meetings

Department of IEOR, Columbia University

New York, NY

Research Assistant (Financial Engineering)

Feb 2014-Dec 2014

- Carried out research on dynamic, static and semi-static hedging strategies and options pricing, including formulating optimal hedging problems and solving these programs
- Participated in an empirical finance project to study certain path behaviors of equity prices

Department of Economics, UCLA

LA, CA

Research Assistant (Industrial Organization)

Apr 2013-Dec 2013

- Prepared datasets for travel agency price forecasting using STATA
- Collected data for bank financial stability analysis and for airline antitrust analysis

ACTIVITIES & VOLUNTEER EXPERIENCE

KASEO (K-town's All Star Educational Outreach) program

LA, CA

Volunteer Tutor and Mentor

Jan 2012-Mar 2012

- Helped middle school students learn math and organized their extracurricular activities

VITA (volunteer income tax assistance)

LA, CA

Tax return preparer

Feb 2011-Apr 2012

- Interviewed individuals and prepared their tax returns

CSSA-UCLA (Chinese Students Scholars Association) Executive Committee

LA, CA

External Affairs Department: Activity Coordinator

Sep 2010-Dec 2013

- Organized activities and presented activity summary in general meetings

HONORS & SKILLS

- Python, SQL, VBA, Microsoft Office, MATLAB, STATA, R, LaTex, Mandarin Chinese (Native)

- Passed CFA Level III; Passed SOA Exam Probability and Financial Mathematics

Jianjun (Jay) Shi
4545 Center Boulevard APT 2319, Long Island City, NY 11109
(347)346-1930, jianjun.shi4@gmail.com

EXPERIENCE

TD Securities (USA), LLC	New York, NY
<i>Senior Quant Developer, Equity Derivative</i> (April 2016 – present)	
<ul style="list-style-type: none">▪ Implement grid computing algorithm for pricing and risk calculations of equity derivatives.▪ Wrap exotic option models and products for pricing and risk calculations.▪ Develop analytical tools for trading desk.	
Credit Suisse Securities, LLC	New York, NY
<i>Assistant Vice President, Rates Derivative Desk Quant</i> (April 2013 – April 2016)	
<ul style="list-style-type: none">▪ Created and enhanced analytical tools for pricing and risk management of rates derivative products.▪ Improved and maintained analytical tools for intraday risks calculations for rates trading desk.	
Credit Suisse Securities, LLC	New York, NY
<i>Assistant Vice President, Credit Derivative Desk Quant</i> (August 2010 – March 2013)	
<ul style="list-style-type: none">▪ Developed and enhanced analytical tools for pricing and risk management of flow and structured credit products. .▪ Created spreadsheet tools to calculate intraday risk for credit trading desk.▪ Built tools to bootstrap term intensity curves (survival curves) from market CDS quotes.	
NumeriX LLC.	New York, NY
<i>Financial Engineer in Financial Engineering Group</i> (July 2009 – July 2010)	
<ul style="list-style-type: none">▪ Implemented Monte Carlo method to price caps/floors and swaptions using 2-Factor Hull-White model (C++).▪ Developed bootstrapping algorithm to insert ATM cap volatility to caplet volatility curve (VBA).▪ Evaluated variance swaps by replications for MetLife derivative trading desk (VBA).	
Moore Capital Management	New York, NY
<i>Intern in Financial Engineering Group</i> (June 2008 - August 2008)	
<ul style="list-style-type: none">▪ Implemented a Heston model pricing engine and a calibration function using Levenberg-Marquardt method (C++).	
LHP Software, LLC.	Columbus, IN
<i>Embedded Engineer</i> (March 2006 - August 2007)	

EDUCATION

New York University	New York, NY
The Courant Institute of Mathematical Sciences	
MS, Mathematics in Finance (August 2007 - January 2009)	
<ul style="list-style-type: none">▪ Coursework: stochastic calculus, option-pricing theory, PDE, time series analysis, credit derivative valuations, interest rate models (SABR, HW, CIR, HJM, BGM), CAPM, Factor model.▪ Projects:<ul style="list-style-type: none">✓ Implemented and compared various option pricing methods, FFT, COS-FFT, and Saddlepoint methods, for GBM, VG, Heston, CGMY, and NIG models (C++).✓ Estimated stochastic volatility using a particle method filter (nonlinear Kalman filter) (Matlab).✓ Implemented SABR model and calibrated it to swaption volatility surface (VBA).✓ Built discount curve from LIBOR deposit rates, Eurodollar future rates w/ convexity adjustments, and swap rates by bootstrapping method (VBA).	
Iowa State University	Ames, IA
Ph.D., Mechanical Engineering with minor in Mathematics (August 2001- December 2005)	
<ul style="list-style-type: none">▪ Dissertation: Control of Nonlinear Flexible Space Structures.▪ Coursework: measure theory, probability theory, statistics, stochastic processes, matrix theory, optimal control.	
Tsinghua University	Beijing, China
MS and BS, Automotive Engineering (September 1993 - July 2001)	

COMPUTER SKILLS

Programming languages: C/C++, Fortran.
Other Software: SQL, Python, R, Matlab, Excel/VBA, UNIX.

ALEXANDER SKORISHCHENKO

646-388-0173

as3303@nyu.edu

OBJECTIVE

A position of a quantitative analyst / strategist / researcher.

EXPERIENCE

ABN AMRO Bank N.V. (Mar. 2016 - Present)

New York, NY

Quantitative Analyst

- Provided quantitative support to commodities trading desk. The desk traded options on oil and natural gas.
- Calculated and uploaded to Murex End of Day prices and volatilities for European, American and Asian options on energy futures and swaps.
- Build and supported several kinds of volatility surfaces using data from Bloomberg and ICE.
- Utilized SABR and CEV models to calibrate volatility curves to Murex format.

FEDERAL RESERVE BANK OF ATLANTA (Dec. 2010 - Mar. 2016)

Atlanta, GA

Quantitative Research Analyst Specialist

- Performed quantitative support for research department of the bank. Worked on Bayesian Semiparametric Stochastic Volatility (SV) modeling projects. Helped economists with design and implementation of SV models.
- Designed and developed with C++ and GSL the following SV models: SV model with normal innovations (SV-N), SV model with Student-t innovations (SV-T), Asymmetric SV model (ASV), Dirichlet Process Mixture model (SV-DPM).
- Constructed several Markov Chain Monte Carlo (MCMC) samplers to estimate unknown parameters of Bayesian SV models.
- Analyzed performance of 5036 hedge funds and inferred the PDF for alphas modeled as Dirichlet Process Mixture (DPM) model.
- Designed and implemented an Open MPI framework to run Markov Chain Monte Carlo (MCMC) simulations on a cluster of 32 computers.
- Programmed with CUDA several simulations to run on a GPU.
- Wrote several Python scripts that ran automatically on a server, downloaded CME prices via FTP, extracted ZIP files and updated local SQL databases.

GRESHAM INVESTMENT MANAGEMENT, LLC. (Sep. 2007 - Dec. 2010)

New York, NY

Quantitative Analyst / Strategist

- Performed quantitative support for a commodity futures trading desk that traded a portfolio of 32 commodities including crude oil, natural gas, metals, and softs.
- Designed and developed in C++ several trading strategy simulations. The algorithms simulated the process of trading of commodity futures with historical prices, portfolio weights, and transaction costs. The transaction costs were calculated based on slippages received from traders. The simulations maintained long, short, and long / short positions. The most successful strategies were utilized by the trading desk.
- Implemented and tested various contract selection / rolling / rebalancing strategies for the desk.

CREDIT SUISSE SECURITIES (USA), LLC. (Oct. 2006 - Sep. 2007)

New York, NY

AVP (Equity Derivatives Trading Desk)

- Supported 15 trading books for exotic and structured equity derivative products.
- Set up valuation models for equity options and S&P futures in trading books.
- Programmed macros for trading books with Excel VBA.

PUBLIC RESOURCES ADVISORY GROUP, LLC. (Mar. 2006 - Oct. 2006)

New York, NY

Quantitative Analyst

- Designed optimization models to calculate debt service schedule for municipal bonds with Excel VBA.
- Built pricing models, and calculated termination values for interest rate swaps and basis swaps.

- Performed municipal debt restructuring using DBC software.

ROXIO, INC. (Apr. 1999 - Jul. 2004)

Toronto, ON, Canada

Software Developer

- Designed architecture and implemented COM objects in C++ for image manipulating software.
- Developed image rendering methods in C++ for various bit-depths and screen resolutions.
- Designed and developed enterprise application in C# and SQL that collected information of ink and paper usage from locally connected large format printers and sent it to a central server. The printers provided XML formatted data and several XSLT conversions were done to standardize the output. The central location server was implemented as a Web Service.
- Developed a mail client application in C++ that worked with Microsoft Exchange Server through MAPI.
- Optimized and redesigned modules that converted raw format of mail messages.

EXADLER TECHNOLOGIES, INC. (Nov. 1997 - Apr. 1999)

Toronto, ON, Canada

Software Developer

- Built a recognition engine in C++ for a speech analysis system based on Fast Fourier Transform equation. The engine's algorithm used dynamic adjustment of sample size, which improved speech recognition power and made the system less dependable on training.
- Built a neural network for the recognition engine. The network was used in training sessions of the engine.
- Developed speech translation modules based on Microsoft Speech SDK objects. The translation modules used International Phonetic Alphabet (IPA) for speech synthesis.

EDUCATION

NEW YORK UNIVERSITY (Sep. 2004 - Jan. 2006)

New York, NY

The Courant Institute of Mathematical Sciences

MS in Mathematics in Finance

- **Derivative Securities:** risk-neutral valuation; the log-normal hypothesis; binomial trees; the Black-Scholes PDE;
- **Continuous Time Finance:** equivalent martingale measures; Interest rate models: HJM; short-rate models; The volatility smile/skew: underlyings with jumps; local volatility models; stochastic volatility models;
- **Financial Econometrics & Statistical Arbitrage:** time series models; volatility and correlation models;
- **Computational Methods for Finance:** numerical solution of parabolic PDEs for option valuation; Monte Carlo, and path generation for SDEs; variance reduction techniques;
- **Stochastic Calculus:** Brownian motion; Ito's integral and lemma; Feynman-Kac formula; Girsanov theorem;
- **C++ development:** yield curve; FRA curve; swap curve; trinomial tree; European / Bermudan swaption pricer; Monte Carlo simulations; Black-Scholes volatility calculator;
- **Matlab development:** programmed PDE solvers for implicit, explicit, and Crank-Nicolson finite difference methods;

ODESSA STATE POLYTECHNIC UNIVERSITY (Sep. 1990 - Jun. 1995)

Odessa, Ukraine

Institute of Automation and Computer Technologies

MS in Computer Science

COMPUTER SKILLS

Platforms: Windows XP, .NET, UNIX/Linux

Programming Languages: C/C++, C#, Java, Matlab, SQL, Python, Perl, XML, XSLT, Visual Basic

Databases: SQL Server, PostgreSQL

Other Software: Rational Rose

MICHELLE TRUONG

US Citizen

150 E. 57th Street; New York, NY 10022 • mtt2104@columbia.edu • Mobile: 646-942-0905

EXPERIENCE

State Street Bank (New York, NY)

12/2015 – Present

Quant, Senior Associate

- Implemented in C++ and VBA/Excel, and documented methodology and findings for:
 - Optimization using MinPack
 - Calibrated SABR model
 - Credit Default Swaps and CDX Options
 - Eurodollar futures convexity adjustments in stochastic volatility models
 - Cap/floor pricer in lognormal and normal pricing methodology
 - Swaptions pricer in lognormal and normal pricing methodology, using either calibrated SABR parameters or volatility grids
 - Inflation swap pricers (zero-coupon and year-over-year) and asset swap on inflation-linked bonds pricer
- Daily volatility and P&L checking, and month-end pricing confirmations/explanations

JP Morgan (New York, NY)

11/2013 -12/2015

Trade Support Specialist, Global Securitized Products

- Developed models and tools in VBA/Excel/SQL to:
 - Implement prototype models to be translated by Tech into their loan management system
 - Automate the trading desk's daily P&L
 - Enhance mortgage pricing models
 - Automate daily summary activity reports and data validation for further diligence
 - Provide status and color on flow and bulk loans from various data sources to ensure seamless trading processes throughout trade life-cycle
 - Perform data mining, analyze mortgage pools, and process historical payments from third parties to generate paystrings and produce ad hoc reports
 - Assist Data Management team's review of amortization schedules, loan transfers, and data processing
- Throughout the trading process:
 - Aggregated data for offering tapes and assisted counterparties' data requests
 - Reviewed and validated bid tapes and performed stratifications on mortgage pools
 - Reviewed mortgage documentation and funding memorandums, and followed-up with relevant parties for any outstanding issues to settle trades
- Identified and resolved issues for existing portfolios, including:
 - Daily reviews of all mortgage characteristics to reconcile questionable data points, remittances records, liquidations records, and due diligence reports
 - Working with servicers, external vendors, and technology to resolve discrepancies and exceptions
- Analyzed and produced reports on mortgage loan desk's trading strategies to present to senior executives
- Assisted with inquiries regarding our portfolio and activities from other departments such as Market Risk Management, Finance, Legal, and Product Control

DBRS (New York, NY)

4/2013-11/2013

RMBS Analyst Intern

- Performed dynamic cash flow analysis and RMBS expected losses using INTEX and internal models based on pool characteristics, multiple prepayment scenarios, loss timing curves and interest rates
- Back-tested and validated new rating methodology models
- Utilized VBA/Excel to automate data scrubbing processes to identify and remove ineligible loan pools for re-REMIC transactions, and to convert raw data tapes from clients to internal formats for analysis
- Additional Responsibilities: inspected collateral and credit statistics for inconsistent and stale data (tape cracking), reviewed legal documentation, prepared transaction memos and presented results to team

Kingsguard Advisors (Global Macro Fixed Income Hedge Fund; New York, NY)

11/2012-3/2013

Quantitative Research Analyst Intern

- Utilized VBA/Excel to evaluate, analyze and back-test relative value trading strategies and provide support for trading desk ad hoc projects

- Developed tools in VBA to price swaptions, options on Eurodollar futures, options on Treasury futures and options on MBS using Monte Carlo simulation method
- Constructed a U.S. fixed income yield curve (discount curve) by bootstrapping market data using Deposits, EuroDollar futures and swap rates
- Calculated forward swap rates, DV01 and partial DV01 to price swaptions and to manage risk
- Modeled Constant Maturity Mortgage Forward Rate Agreement to speculate on future mortgage rate moves and to hedge forward mortgage spread exposure
- Performed regression analysis to find statistically significant explanatory variables driving U.S. economic indicators

Gresham Risk Partners (New York, NY)

6/2012-9/2012

Data/Analyst/Quantitative Developer Intern

- Developed portfolio management systems, including tailored risk management and advisory solutions across entire client portfolios using C++, C#, VBA, R, SQL Programming and Adobe FLEX 4.5
- Used R to calculate VaR for client investment portfolios using historical simulation, variance-covariance method and Monte Carlo simulation

Steven Winter Associates (New York, NY)

7/2008-3/2011

Community Environmental Center (Long Island City, NY)

1/2007-6/2008

Energy Modeler

- Employed numerical analysis and simulations using historical hourly weather data to predict a building's annual energy consumption and financial benefits by incorporating specific technologies/measures
- Wrote modules in C++ to import into commercial simulation software to help with analysis that was not supported by the software and/or to automate repetitive tasks

SKILLS

- *Programming Languages:* C++, VBA, SQL, Fincad API, R, Python, Matlab
- *Applications:* Fincad Excel, Bloomberg, INTEX, Excel

EDUCATION

New York University (New York, NY)

1/2011-5/2012

Financial Engineering (GPA: 3.6); Master of Science

California Institute of Technology (Pasadena, CA); Oberlin College (Oberlin, OH)

9/2000-6/2005

Dual Degree: Engineering and Applied Science (Cum. GPA: 3.4); Bachelor of Science & Bachelor of Arts

Audie Wang

New York, NY

347-348-6778

audie.wang@gmail.com

Summary of qualifications

- **Position:** CCAR Modeling Analyst with Statistic and Finance background
- **Programming Experiences:** Python, SAS macro/Unix, Stata, SQL, Matlab, R, Excel VBA, Eviews
- **Expert in:** Time series model development, Data mining, Data visualization (Tableau and Qlikview), Data analysis, Financial product valuation
- **Personalities:** detailed-oriented, self-motivated, and problem-solver
- **Language:** English and Mandarin
- **Visa:** U.S. Permanent Resident
- **Certification:**
 - R Programming-Johns Hopkins University and Coursera Verified Certificate (Grade:99/100)
 - SAS Certified Advanced Programmer for SAS 9 (Test Score 97/100)
 - SAS Certified Based Programmer for SAS 9 (Test Score 92/100)
 - CFA Level II Candidate from CFA Institute

Work Experience

Quantitative Analyst-Associate Director, UBS

Dec 2016-Present

New York, NY

- Design, building, implementation, and support of quantitative models to forecast of all key Pre-provision Net Revenue (PPNR) components across the company for use in internal forecasting, capital stress testing and CCAR exercises
- Generate data extracts and reports for use in statistical analysis.
- Design models to fit business model and internal data and acquire required data
- Maintain a clear documentation trail of approach and process
- Ensure consistency across models employed for forecasting and stress testing
- Improve model intelligence by liaising with internal and external resources
- Periodically perform quality and performance testing on models
- Remain abreast of modeling research and development

Data Scientist-SAS Modeler, Mizuho Bank

Apr 2016-Nov 2016

New York, NY

- Review and challenge PPNR forecasting model for trust bank, broker-dealer, and commercial loans under stressed macroeconomic scenario.
- Develop and implement CCAR data reconciliation to comply the regulatory report FRY-14A.
- Design, implement, enhance and debug SAS Macro code to support high quality PPNR and balance models that exceed supervisory expectations
- Identify limitations and shortcomings in the PPNR and balance model development process and develop plans to undertake corrective actions
- Evaluate data to identify necessary adjustments and work closely with business users to create robust forecasting models
- Communicate key findings and enhancements to client constituencies engaged in model documentation, validation as well as other functions involved in the capital stress testing process
- Manage projects and deepen relationships with internal and external counterparties to enhance institutional knowledge to support the PPNR and balance model process
- Mentor intern on team, including guiding intern with data reconciliation or data analysis and reviewing intern's contribution.
- Contribute to other initiatives that may arise on an ad-hoc basis

CCAR Modeling Analyst, BNP Paribas (Consultant)

Nov 2015-Apr 2016

New York, NY

- Organize business revenue data with macroeconomic variables in SAS macro, SQL, and VBA
- Reconcile internal and external data from Bloomberg, Thomson Reuters, SIFMA, Dealogic
- Develop time series model-SFA and MFA, back-test model, stress and sensitivity analysis
- Manage projects in PPNR and OTTI model
- Express data collection, model development progress to senior director
- Analyze business in Private Equity, Fixed Income, M&A, IPO valuation-Industry analysis, and macro-economics scenario analysis
- Write documentation of model development to business and manager

Credit Analyst, LG Electronics

Sep 2014-Nov 2015

Englewood Cliffs, NJ

- Prepare the credit report includes quantitative analysis and qualitative analysis
- Present weekly credit summary and credit strategy analysis to senior manager
- Control cost of risk management, expense management and monitor the cost-saving process
- Communicate with senior managers, sales, clients, and other suppliers to facilitate their requests.

- Proficient in Credit Risk Management, Big Data, GAAP principal, and Financial Statement Analysis
 - Monitor the credit quality of customers and handle updates to current credit files & systems
 - Write SQL queries to organized customer credit information to senior manager and vice president

Finance Analyst Intern, Whitford Holding LLC	May 2014-Aug 2014	Philadelphia, PA
<ul style="list-style-type: none">• Private Equity Valuation- DCF, Comparable Companies, and Comparable Transaction models• Conduct financial feasibility analysis and fundamental analysis of a multi-use facility• Compose business plan, marketing strategies, evaluated funding options and estimated costs, established revenue sources• Create financial Statements reconciliation and analyzed data, conducted quantitative analysis to forecast revenue, identify cost and growth rate, and assess risks associated with capital expenditures, expansions, merge and acquisitions opportunities• Construct Revenue Forecasting, Cost Controlling, Business Budgeting for clients• Designed and implemented tables, functions, and stored procedures in My SQL		
Research Assistant, Yuan-Ze University	Sep 2011-Jun 2013	Taoyuan, Taiwan
<ul style="list-style-type: none">• Efficient in time management and project management• Import/Export data from Bloomberg, Reuters, Lexis-Nexis, COMPUSTAT, CRSP, IBES, Mergent Online, World Bank, FRED and Datastream• Experience in computer programs and tools including SAS, Eviews, Matlab, Excel VBA through queried, merged, cleaned and organized to construct the report• Organized big data management includes collecting data, group data, analyze data, build model, and present to supervisors• Capable of handling multiple tasks, manage multiple projects being flexible and responsive, and translating key business findings and insights based on data analysis		

Educations

Data Science Certificate, Harvard University

Master Science in Finance , West Virginia University	Jun2013-Aug 2014	GPA 3.5/4.0
Master Science in Accounting and Finance , Yuan Ze University	Sep 2011-Jun 2013	GPA 4.0/4.0
Bachelor Science in Finance , National Sun Yet-Sen University	Sep 2007-Jun 2011	GPA 3.5/4.0

Skills

Statistics model development

- 4+ years of building statistical models for evaluation, comparison, measurement and prediction;
 - Experienced in building cross-section model, time series model and panel model; including liner regression model, logistical regression model;
 - Specialized in building statistical models with statistical and programming tools such as SAS and R

Specialized in **Data Programming**

- 4+ Experiences on statistic data programming system in SAS macro, Matlab, R, Excel VBA, SQL, and Python; Experience in data management, coding, and analysis
 - Enthusiastic learner of new technical tools and software applications, and present ideas in a clear and concise manner to senior management.

Database Analysis

- 4+Experiences on finance research and finance database management
 - Advanced in data mining in different databases data such as Bloomberg, Thomson Reuters, Dealogic, SIFMA, D&B, COMPSTAT, CRSP, IBES, Mergent Online, World Bank, and Datastream

Financial Product Valuation

- 4+Experiences on financial product valuation, including private equity, M&A, and fixed income.
 - Expert in DCF model building, comparable company valuation, industry analysis
 - Evaluate revenue prediction and risk management for financial products

Financial Statement Analysis

- 4+Experiences on financial statement analysis, accounting, and GAAP/IFRS compliance
 - Analyze 10-K for financial statement reconciliation to measure the firm value and capture revenue trend, proficient with capturing the trend of net income to predict future operating performance;

BENJAMIN WANG, CFA

33-39 156th St. – Flushing, NY 11354 - (248) 930-4097 - benjamin.wang@gmail.com

EXPERIENCE

Janus Capital Group – Darien, CT **November 2014 - Current**

VelocityShares – Darien, CT **May 2012 - Current**

Quantitative Strategy

ETP Portfolio Manager

- Portfolio Management of Janus ETP Suite
- Quantitative Research in Volatility and Commodity Exchange-Traded Products
- Researched and Modeled Trading Strategies, for use as Investable Indices or within an ETP
- Managed suite of Proprietary Indices, including Optimization and Rebalancing
- Developed and Implemented Trading Model for Tail Risk Hedge Fund (and SMAs)

Goldman Sachs Asset Management – New York, NY

Quantitative Investment Strategies Trading Desk

Execution Trader

January 2007 - June 2011

- Implemented and Executed Quantitative Strategies, within Asset Classes including: Currency Spot and Forwards, Currency Swaps, Equity, Commodity, and Fixed Income Futures, Index, Corporate, and Sovereign Credit Default Swaps, TBAs, Interest Rate Swaps, Cash Bonds, FX and Equity Variance Swaps
- Hedged Delta Risk in Commodity and Fixed Income Volatility Strategies
- Managed Developed and Emerging FX positions, responsible for Roll Generation and Oversight of the Overall Position
- Designed Visual Basic applications that minimized trading and operational risk; improved efficiency by automating allocations and booking

Susquehanna International Group, LLC. - New York, NY

Assistant Trader

July 2005 - September 2006

- Assisted five traders on automated option trading desk with daily tasks, including overseeing trading systems and hedging portfolio risk
- Participated in daily Mock Trading classes
- Developed Applications using SQL, Visual Basic, and Perlscript that automated customary tasks and improved daily trading procedures

EDUCATION

Columbia University, New York, NY

- *Master of Science in Financial Engineering* **May 2012**
- Relevant Coursework: Introduction to the Volatility Smile, Credit Risk and Derivatives, Monte Carlo Simulation, Stochastic Models, Optimization Models and Methods, Continuous Time Models, Data Analysis, Computational Methods for Finance

Chartered Financial Analyst (CFA) Institute

- Awarded *Membership Charter* **August 2010**

Massachusetts Institute of Technology, Cambridge, MA

- *Master of Engineering in Computer Science* **June 2005**

Thesis: “Developing Courseware to Support Online Discussion”

- *Bachelor of Science in Computer Science* **June 2004**

- Relevant Coursework: Probabilistic Systems Analysis, Microeconomics, Macroeconomics, Software Engineering, Artificial Intelligence, Principles of Applied Mathematics, Algorithms

SKILLS

- **Computer:** Proficient in Bloomberg, Visual Basic, MATLAB, SQL, LaTeX, Linux, S-PLUS

- **Language:** Fluent in English and Mandarin

INTERESTS

- Athletics, writing, NYRR, completed 2009 NYC Marathon, Jeopardy, orchestral and chamber music

JIA WANG

18 Park Ave Apt 1018, Jersey City, NJ 07302 • (801) 739-2789 • jwang@math.utah.edu

WORK HISTORY

Goldman Sachs

2015.04 - Present

Vice President, Risk Management

- Reviewed and validated credit risk capital planning A-IRB models (PD, LGD, and EAD) for the firm's retail (online P2P consumer lending, student loans, residential mortgages - US, Irish, Peruvian, home improvement loans) and wholesale portfolios.
- Researched modeling methodologies and performed quantitative model performance tests in R, Slang, and SQL, and benchmarked model outcomes with industrial practices. Verified model compliance in accordance with Basel II/III, Fed letter SR 11-07, BCC 13-5, and BCC 14-3.
- Communicated with model stakeholders on validation findings and recommendations. Presented to senior VPs and Managing Directors on a biweekly basis.
- Uplifted the firm's VaR framework and risk factor decomposition model documentations to meet the new model control standards. Enhanced the proxied risk factor monitoring report and time series variability report for market risk time series data validation and management.
- Rewrote the internal machine learning function library for the Expectation-Maximization algorithm, improved the model efficiency by 800% along with an automated model performance report.
- Collaborated with the team on the development of a systematic data validation and anomaly detection tool using regression analysis and k-NN classification. Automated the detection algorithm and validation reports for various asset classes (Equity, FX, Credit, Rates).

Zions Bancorporation

2014.05 - 2015.04

Quantitative Modeling Analyst IV, Corporate Finance

- Designed, developed and documented Small Business Lending credit risk models (PD and LGD) for 2014 annual Comprehensive Capital Analysis and Review (CCAR) submission.
- Utilized Cox proportional hazards model, logistic regression, cluster analysis, and random forest in the model development, coded SAS macros and R functions to automate variable and model selection. Performed statistical diagnostic tests, backtesting, sensitivity analysis and QRM reconciliation.
- Interacted with senior management and regulators to address questions and concerns.

University of Utah

2010.08 - 2014.08

Graduate Teaching Assistant

- Instructed MATH 1070 Introduction to Statistical Inference and MATH 3070 Applied Statistics R Lab.

Shanghai Foreign Language School, Shanghai, China

2005.07 - 2010.01

Math Teacher

- Taught mathematics to local and international students, tutored SAT and IB preparation courses.

EDUCATION

Ph.D., Mathematics, University of Utah, Salt Lake City, UT

2012 to 2014

Thesis: Change-point Analysis of Panel Data

Master of Statistics, University of Utah, Salt Lake City, UT

2010 to 2012

Bachelor of Science, Computational Mathematics, Fudan University, Shanghai, China

2001 to 2005

TECHNICAL SKILLS AND CERTIFICATIONS

- Proficiency in **R, Python, SQL, Microsoft Office Suite, SAS, Slang, C/C++, Perl, L^AT_EX**.
- SAS Certified Advanced Programmer for SAS 9.**
- Passed Society of Actuaries **Exam Probability** and **Exam Financial Mathematics**.

HONORS AND AWARDS

- Mathematics Student of the Year, University of Utah** 2012
- Outstanding Teaching Award, Shanghai Foreign Language School Affiliated with the SISU** 2009
- Undergraduate Scholarship, Fudan University** 2004 - 2005

ANDREW WESTHEAD

220 Riverside Blvd #16B, New York, NY 10069 (917) 385 5220 an_westhead@yahoo.com

PROFESSIONAL EXPERIENCE

BANK OF AMERICA MERRILL LYNCH, New York, NY

January 2009 - Present

Director, Global Execution Services Quantitative Analytics

- Responsible for all quantitative aspects of the equity trading algorithms, with particular focus on the writing of the next gen algorithms, smart order routing, market microstructure research, transaction cost analysis, development of short term alpha signals, backtesting, and internal crossing.
- Manage a team of 4 quant research analysts. Assisted with the hiring of all current members of the desk.
- Working on implementing the next generation of trading algorithms for BofAML, a multi-year, multi-million budget project to improve the quality of the firm's equity execution platform: already wrote POV (volume tracking), VWAP and Buyback algorithms, which are now used exclusively by all internal trading desks; external client migration to be completed by end of 2015; particular focus on execution quality, robustness, scalability and ease of use of the algorithms; presently working on aggressive liquidity seeking, closing price benchmark and futures algorithms.
- Work closely with product team: define requirements; prioritize projects; write specifications and documentation; educate and assist internal desks; communicate project status and delivery milestones to senior management.
- Work closely with the sales team: help produce sales material for clients; provide client specific analysis and trading recommendations; assist with client customization of the algorithms; attend client meetings.
- Work closely with technology team: design and implementation of the algorithms; implementation of a backtesting framework; creation of test plans; testing, validation and deployment; creation of support procedures and documentation; capacity planning; on-going support and troubleshooting.
- Other recent projects: research and design of the new smart order router for both lit and dark venues, which is used for all equity trading in the US; creation of a web-based analytics platform for detailed post trade analysis of orders; creation of rules and safeguards to prevent erroneous executions.
- Research US, Canadian, Brazilian and Mexican equity market microstructure and US options market microstructure and help produce regular reports for clients on liquidity and trading costs in each market.
- Part of a group that analyzed and compared the trading algorithms from BofA Securities and Merrill Lynch and determined which to keep as part of the combined platform; responsible for integrating several of the BofA algorithms into the Merrill Lynch platform.

BANC OF AMERICA SECURITIES, New York, NY

June 2008 – January 2009

VP, Electronic Trading Services

- Designed, wrote and helped deploy a new “dark only” trading algorithm that helped seek hidden liquidity in various dark pools and ECNs.
- Significantly improved the scalability of the trading platform by streamlining several of the core algorithms.
- Managed a group of 3 who aided in the quantitative effort, and coordinated with the technology and data teams on improving the trading infrastructure.
- Worked with sales to produce a number of presentations and reports for clients highlighting various quantitative aspects of the algorithms and overall market structure.

LEHMAN BROTHERS, New York, NY

2003 – 2008

VP, Equity Quantitative Analytics (2005 – 2008)

- Responsible for the development of Lehman's core US agency equity trading algorithms – VWAP, TWAP and WithVolume which accounted for more than 50% of Lehman's algorithmic trading volume.
- Oversaw development of the algorithms in a period over which Lehman's daily algorithmic trading volume increased from approximately \$5 billion per day to \$15 billion per day.
- Designed, implemented and tested Lehman's core Canadian agency equity trading algorithms.
- Principal tasks included: recalibrating internal limit-order models used in the algorithms; detailed analysis of the performance of the algorithms over different stock characteristics (market cap, spread, volatility, etc.) and different market conditions; streamlining of code to handle heavy market data volumes; addition of new, user requested features; coordination of testing and deployment in collaboration with IT.
- New algorithms developed: TargetStrike – objective was to minimize execution cost with respect to arrival price given a client specified urgency; Futures – modified the core algorithms to trade a wide range of futures contracts on CME, CBOT and NYMEX; “Hydra” – Lehman's dark liquidity algorithm; Various custom algorithms for internal traders that included a market making algorithm for FX warrants.
- Coordinated undergraduate and master's recruiting for the desk: hired 6 students over a 2 year period and won a corporate award for recruiting efforts.

Associate, Lehman Equity Capital Management (2003 – 2005)

- Worked on creating and improving quantitative, proprietary equities trading strategies.
- Developed 2 profitable strategies: a strategy based around analyst's earnings estimate revisions - portfolio notional was approximately \$20M and was rebalanced daily; a strategy based on short term reversion - portfolio notional was approximately \$15M and was rebalanced weekly.
- Wrote and deployed the code for generating the portfolio rebalances used in actual trading in both cases.

SKILLS

- Significant experience in working with large financial data sets and various statistical and econometric techniques: multivariate regression, hypothesis testing, non-parametric methods, backtesting, data screening.
- Data analysis and modeling using Q/Kdb+, Matlab, Perl, SQL, Excel VBA.
- Extensive experience in working with equity tick data and other data sources: examples include Bloomberg, FAME, NYSE OpenBook, NASDAQ ITCH, Wombat real-time market data.
- Java and C++ programming.
- Ph.D. research in numerical simulation of oil reservoir flows, done in collaboration with researchers from ExxonMobil.

EDUCATION

California Institute of Technology, Pasadena, CA

September 1998 – August 2003

Ph.D. in Applied and Computational Mathematics.

Thesis title: “*Upscaling for Two-Phase Flow in Porous Media*”. Advisor: T. Y. Hou.

Publications:

- “*A Framework for Modeling Subgrid Effects For Two-Phase Flow in Porous Media*”, with T. Y. Hou and D. Yang, SIAM Journal on Multiscale Modeling and Simulation, Vol. 5, No. 4, 2006.
- “*A diffusion model for upscaling porous media flow*”, ExxonMobil Upstream Research internal company report, 2002.

Imperial College, London, UK

July 1998

MSci Mathematics, First class honors, recipient of the Governor's prize for Mathematics (best student in the year at the final examinations).

ADDITIONAL INFORMATION

- Passed FINRA Series 7, 63, 55 and 24 exams, Canadian trader exam.
- U.S. citizen.

KAI YAN

Address: 444 Washington Blvd, NJ

Phone: +1(404)348-6074

E-mail: kyan729@gmail.com

PROFILE SUMMARY

- Extensive experience in model development/ model validation covering Equities, Equity Derivatives, Credit and Securitization products (MBS/ABS), and in quantitative trading /investment strategies across Equities and Equity Derivatives
- Solid programming proficiency with Matlab, SAS and Excel/VBA
- CFA Level II candidate; CAIA Level II candidate; FRM Level II candidate

EXPERIENCE

Bank of America Merrill Lynch

New York, NY

Assistant Vice President - Model Risk Quantitative Finance Analyst

2015.4-Present

- Validate market and credit risk models globally across all divisions including

Merrill Lynch Global Wealth & Investment Management; Dynamic Asset Allocation (forecast returns/volatilities with factor models and combine Black-Litterman features to feed into Mean-Variance portfolio optimization to find optimal weights), Equal Risk Contribution/Risk Parity Allocation (allocate assets based on the amount of risk to the portfolio), Goal Based Asset Allocation (compute estimated wealth required today to invest in a selected group of asset classes in order to achieve Ultra High Net Worth clients' specific future spending goals)

Global Commercial Banking; Credit Risk Rating Scorecard models (employ logistic regression models to assess obligor's credit risk, and convert them to 19 distinct risk grades with a corresponding probability of default)

Global Banking & Markets; Efficient CDS Pricing (express CDS value as a product of survival probabilities at all relevant maturities and the remaining critical pricing components to improve the bootstrapping of survival probability curves)

- Coordinate meetings to communicate validation outcomes between line of businesses, key stakeholders, project management teams, and relevant users; participate discussions with regulators and external consulting firms on issue remediation
- Award Bank of America Global Recognition Gold Rewards for taking ownerships/initiatives on urgent issue validation assignments and completing well head of validation cycle to meet regulatory requests

Moody's Analytics

New York, NY

Financial Modeling Analyst – Structured Analytics & Valuations

2014.9-2015.4

- Built quantitative financial models for Moody's Credit Rating Outlook on individual US Mortgage Backed Securities(MBS) with VBA/Excel and Structured Finance Workstation (SFW)
- Analyzed and reviewed the internal structure of CMOs, and non-agency RMBS with Shifting Interest, Over-Collateralization and Negative Amortization features, forecasting losses under various default/prepayment assumptions
- Resolved clients' issues on software use, cash flow anomalies, and rating changes, ensuring accurate model deliveries in extremely tight timelines
- Trained new hires on bond market, securities' structuring and software implementations, created a 117-page training material to automate future training processes

AllianceBernstein

New York, NY

Summer Project - Quantitative Analytics & Portfolio Construction

2013.6-2013.11

- Developed portfolio trading strategies mainly on US Equities using Risk Aversion indicator, annually outperformed traditional CAPM by 0.3 in sharp ratio and by 0.144 in information ratio over 50 years
- Captured market risk intensity, built time varying parameter (TVP) risk signal model with Excel/VBA, and estimated model parameters using Matlab
- Constructed risk regime partition, created Dummy-Variable regression model with SAS to select stocks with positive alpha under different risk levels, and rebalanced portfolios when risk regime switches
- Back-tested portfolios under each risk regime and identified common characteristics of stocks that achieve positive alpha in both high and low risk regimes, provided recommendations to institutional clients

EDUCATION

Fordham University, Graduate School of Business

New York, NY

Master of Science, Quantitative Finance; GPA 3.8/4.0

2012-2014

Southern Polytechnic State University

Marietta, GA

Bachelor of Science, Mathematics; Minor: Business Administration; GPA 3.9/4.0

2008-2012

Rui Yang

511 E 20th St, Apt 3B, New York, NY, 10010
212-721-6915 rui.yang@gmail.com

WORK EXPERIENCE

MKP Capital Management, LLC *Quantitative Researcher*

New York, NY
Sept 2015 -

- Designed and implemented a systematic volatility targeting portfolio framework that applies risk parity scheme to top discretionary trading ideas. The framework is shown to improve absolute return by 254% and Sharpe ratio by 0.4 in a 5-year period, and is currently under mock trading.
- Co-designed a credit volatility selling strategy with equity volatility hedging, and an equity vol carry strategy that predicts short term VIX futures movement using its term structure and ETN flow information.
- Developed a carry portfolio that dynamically allocates between credit carry strategy and equity vol carry strategy. A clustering based regression technique is used to improve the prediction.
- Built an intraday realized volatility estimation model using open, high, low and close prices to discover arbitrage opportunities in equity option market. This arbitrage strategy is shown to be profitable for both equity single names and indices.
- Curated CTA strategy total return database from various sources and designed a trend following strategy which achieved 80%+ rolling correlation with SG Trend Index.
- Co-developed proprietary risk factor to identify economic regime for US and China. Performed various statistical and scenario analysis to identify macro risk factors and attribute performance drivers.

Credit Suisse Group AG, Fixed Income Department *Associate, Interest Rate Product Group*

New York, NY
July 2013 - Sept 2015

- Deliver modeling and risk analysis solution to interest rates products trading, structuring and sales.
- Designed and implemented in C++ the backbone dynamics of stochastic volatility model(SABR) for interest rate volatility surface to obtain more accurate price and risk calculation of rates option.
- Delivered a volatility relative value model to explain ATM swaption vol surface via PCA technique and designed a strategy by detecting arbitrage opportunity based on the model's fitting error.
- Maintained the department wide interest rate/FX full revaluation VaR process. Optimized the work flow significantly by refactoring the code.

Goldman Sachs & Co., Security Division *Summer Associate, Interest Rate Product Group*

New York, NY
May 2012 - Aug. 2012

- Built the pricing model for an interest rate futures contract with convexity correction for its simple average settlement rule and pushed it into production. The model is used to analyze the futures contract's risk profile and corresponding hedging strategy.
- Written an initial margin calculator for a non-deliverable forward product and created an application to automatically query and process large scale data sets from the clearing house. This is in production.

Gelber Group, LLC *Trader Intern*

Chicago, IL
June 2010 - Aug. 2010

- Performed statistical analysis of and backtested several pair trading strategies on equities and index futures in R. Researched extensively on the hedging part to better manage risk, reduce cost and improve revenue.

Multimodal Information Access & Synthesis Center *Researcher at Data Sciences Summer Institute*

Urbana, IL
May 2011 - July 2011

- Co-developed a real time Twitter based crime detection application leveraged by data mining and information retrieval techniques in Java. This work won Yahoo! DSSI Outstanding Student Project.

EDUCATION

Ph.D. in Industrial Engineering, M.S. in Statistics University of Illinois at Urbana-Champaign Research Projects: Sparse Portfolio Optimization, Binary Matrix Factorization, Online SVM Algorithm

2008 - 2013
Champaign, IL

B.S. in Applied and Computational Mathematics Peking University

2004 - 2008
Beijing, China

COMPUTER SKILLS

C/C++(teaching data structure for 2 yrs), Matlab, Python, R, MS Excel VBA, SQL, UNIX

Jimmy Yeung

Market/Quantitative Risk Manager

New York, NY
jckyeung@gmail.com - + 1 (714) 322-9691

Willing to relocate: Anywhere

WORK EXPERIENCE

Manager - Market Risk

KPMG - New York, NY - April 2014 to Present

- Derivatives valuation: Valuated exotic financial products such as options, swaps, futures/forwards, across multiple industries using Bloomberg
- Fixed Income valuation: Valuated credit products such as option-embedded bonds, CMBS, MBS, and ABS using Intex
- Model validation: Experiences examining financial firm's systems for model input and output including assumptions, limitations, and effective implementation. This includes VaR models along with the following products: swaptions, swaps, and options
- Project management: Engagement manager for multi-million advisory projects for top US banking institutions providing CCAR expertise including but not limited to forecasting, compliance, controls and documentation for FR Y-14A/Q. Responsible for all aspect of the project from beginning to end

Project Intern - Citi Global Markets

Citibank - New York, NY - February 2013 to June 2013

Portfolio management: Enhanced Citibank's clients' existing trading strategies by identifying value among corporate bonds in PD- momentum, sector and other factors

Senior Financial Analyst - Corporate Treasury's Asset Liability Management

US Bancorp - Minneapolis, MN - June 2011 to September 2012

- Risk management: Analyzed credit and interest rate risks by managing a \$23 billion premiere product
- Model development: Developed, implemented and back-tested using SQL and SAS a logistic regression that forecasts account attrition. Written and presented results to the U.S. Department of Treasury

Consultant - Financial Enterprise Data Analytics

FTI Consulting - Los Angeles, CA - July 2008 to March 2011

- Programming: Assisted the government in reaching a multi-billion class settlement. Utilized SQL and Access to analyze database with over 80 million records to resolve gaps, identify account holders and map transactions
- Model development: Developed a complex financial database and model within R to assess compensation figures. Supervised and mentored two to three consultants

Additional

- Programming: SAS, SQL, MATLAB, R, STATA, C++, C#, Python, MS Office, Bloomberg
- United States and Hong Kong citizen
- Fluent in English and Cantonese; Mandarin (beginner)
- Traveling and adventure enthusiast: traversed all over Europe, North America, South America and Asia

EDUCATION

Master of Financial Engineering in management

UCLA Anderson School of Management - Los Angeles, CA
December 2013

Bachelor of Arts in Applied Mathematics

University of California - Berkeley, CA
May 2008

Yu(Thomas) Tang, FRM

(973)-204-7575

thomasty1988@gmail.com

Education

Rutgers University (GPA 3.85/4) – Newark, NJ

Master of Quantitative Finance

Sep 2012-May 2014

Renmin University of China (GPA 3.3/4) – Beijing, China

Bachelor of Arts in Economics

Sep 2007-July 2011

Professional Experience

CRISIL | An S&P Global Company

New York, NY

Senior Quantitative Analyst

Feb 2015-Present

- Model Validation Projects at BNP Paribas (Sep 2016 – Present):
 - Reviewed and validated multiple CCAR PPNR (Primary Flow, Credit Flow, Commodity Futures & etc.) models
 - Developed alternative models in R/Excel to benchmark and challenge the champion models
 - Interacted with model developer and business communicate model recommendations and address findings
- Market Risk Projects for Credit Suisse (May 2015 – Sep 2016):
 - Extensively implemented product level (CDS/CDX, MBS, TBA & etc.) VaR models in VBA/R and automated backtesting and P&L attributions process
 - Reviewed and modelled various market risk factors (Credit Spread Delta, Equity Dividend Delta, etc.) in R
 - Developed quantitative measures to rank VaR model performance and P&L distributions across portfolios
 - Established and maintained a SQL database to manage raw data and ongoing monthly backtesting results
 - Researched and developed one cluster detection methodology based on reciprocal of distance to identify clustering
 - Coded in Sweave/Latex to convert word documents and add dynamic data processing and output feature
- Commercial Credit Risk Projects for Commerica: migrated PD, LGD, EAD, Loss Forecasting and challenger models from VBA to SAS and extensively improved the efficiency of Merton factor optimization process in PD model (Feb 2015 – Apr 2015)

Boston Consulting Group

New York,

NY

Associate

Sep 2014-Jan 2015

- Conducted risk identification and materiality assessment on BHC's idiosyncratic risk factors at Citi's CCAR project
- Reconciled BHC's overall and regional RWA inventory and assessed the materiality of regional risk exposure
- Evaluated and challenged the effectiveness and intuition of macro variable forecasting results for BHC's internal scenarios

View from the Peak: Global Macro Research

New York,

NY

Research Intern

Feb 2014-May 2014

- Evaluated on the mechanism and influences of iron ore collateralization phenomena in China, analyzed iron ore price based on importation, inventory and economic cycle, and issued a report warning the further falling price
- Conducted research on Chinese trust market, evaluated the market scale, historical PD and LGD, and regulations

Academic Projects

- Established a Coherent Measure of Risk optimization with 3 years' S&P 500 components daily data and generated an annualized return of 30.53% with moderate risks comparing to S&P 500 index (Matlab)
- Option pricing and hedging using Monte Carlo Simulations and variance reduction (Matlab, C++)
- Time series analysis using ARIMA & GARCH model, data processing and non-linear regression(R)

Skills & Certificates

- Experience in R, VBA, SAS, Matlab, C++, SQL, Latex, Sweave, MS Excel
- Credit Risk Modeling (PD, LGD, EAD, Loss Forecasting), Market Risk, Backtesting, CCAR/DFAST, FRTB, PPNR
- FRM Holder, Passed CFA Level III

ZHENGPING ZHANG

+1 646 468 8014, zhangaman@yahoo.com

EXPERIENCE:

Santander Quant. Risk Manager	New York, NY 07/16 – present
<ul style="list-style-type: none">• Lead internal CCAR / Stress test modeling efforts for a book• Compile, clean, and reconcile data from various internal and external data sources• Liaise with internal model validation / review and external regulatory exams	
HSBC VP, Credit Risk / Econ Capital	New York, NY 01/15 – 06/16
<ul style="list-style-type: none">• Led credit rating models (IRB) development to quantify counterparty's default probability for C&I book• Integrated data from various data sources, conduct in-depth data cleansing and analyses• Provided help / involve in other IRB modeling, including loss given default, exposure at default• Liaised with internal model validation / review, internal audit, and external regulatory exams on production PD models	
Standard & Poor's Associate, Model Validation group	New York, NY 09/10 – 12/2014
<ul style="list-style-type: none">• Validating / replicating statistical / stochastic models used by Standard & Poor's Ratings Services globally• Knowledge of regulatory capital and economic capital concepts, including VaR and CCAR/ICAAP• Deep understanding of statistical data processing / analyses• Experiences with predictive modeling developments, validation, back testing and stress testing	
Standard & Poor's Intern, Quantitative Analytics Research Group	New York, NY 05/10 - 09/10
<ul style="list-style-type: none">• Helped calibrate statistical models of probability of default for US non-conforming residential mortgages; improved the prototype models for better performance and flexibility• Built an initiative model to forecast US house price index (HPI) using historical panel data in SAS®	
Other qualifications / knowledge:	
<ul style="list-style-type: none">• Programming in SAS, Excel/VBA, R / MATLAB, Python, and SQL• Years' experience in applied statistical data analyses, including univariate and multivariate linear and nonlinear regressions, logistic regressions, data mining, machine learning, etc.• Hands-on experience in large data sets from variety of data sources, including data transfer, manipulation, and dimension reduction	
Ferro Corporation Engineer	Penn Yan, NY 2004 - 2008
<ul style="list-style-type: none">• Applied statistical methods of factor analysis for high volume production process control; reduced raw material cost by 45% in 2 years• Liaised between different stakeholders for various decision formation, prioritization and completion• Led a team of engineers to provide professional technical support to clients, enhanced client satisfaction for three consecutive years, originated several new clients	

EDUCATION:

Rutgers, the State University of New Jersey, Rutgers Business School Master of Quantitative Finance	Newark, NJ 2008 – 2010
<ul style="list-style-type: none">• An interdisciplinary program of Finance, Economics, Mathematics, Statistics and Programming	
University of North Texas PhD in Materials Science and Engineering	Denton, TX 2000 – 2004
<ul style="list-style-type: none">• Specialized in polymerization dynamic modeling and solid state electronic device process and performance simulation	

FENIX PENGFEI ZHANG

New York City, NY | Phone: (416) 419-2588 | Email: fenixzpf@hotmail.com

OBJECTIVES: Keen on obtain position in quantitative research, trading, and investment modeling in a financial service firm where I can leverage my finance and quantitative analysis expertise to contribute to team success

EDUCATION

University of Toronto , Toronto, Ontario	Sep 2013 – May 2014
- <i>Master of Statistical Science</i> , GPA: 3.79	
University of Toronto , Toronto, Ontario	Sep 2009 – May 2013
- <i>Honors Bachelor of Science</i> , Last 2-year GPA: 3.8	
- <i>Double major in Statistics and Economics</i>	

Other industry education and research

• QuantInsti Inst, Executive Algo Trading Certificate : Derivatives, Quant trading, Portfolio construction	Mar - Sep 2016
• School of Professional Studies New York University : C++, Derivative modeling, Hedge fund	Feb - May 2016
• Investment Banking Institute : Equity analysis, Financial modeling, Company valuation	Jan - Feb 2016
• University of Toronto School of Continuing Studies : Big data with Python, Value Investing	Sep - Dec 2015
• CFA Level 2 Candidate	

WORK EXPERIENCE

Senior Quantitative Analyst, Crisil Global Research & Analytics (A Standard & Poor's Company) Nov 2015 – Present

Client Project: IHC Market Risk Modelling team, BNP Paribas

- Led a team of three to provide clients with quantitative advisory services for critical market risk models
- Created trading revenue (PPNR) and VaR forecasting models using multivariate regression and principle component analysis
- Delivered timely and high quality results and ensured complete client satisfaction and project profitability

Client Project: Portfolio Management & Stress Testing team, Deutsche Bank

- Utilized various statistical models to analyze the risk profile of the firm's multi-asset portfolio
- Designed and tested a range of scenarios that capture stresses in securities' significant returns on identified main drivers
- Implemented strategies for dynamic portfolio and stress testing and reviewed results with various business groups
- Developed quantitative analytical tools in Python for scenario design, full revaluation, and P&L and results calculation

Risk Analyst, Model Validation and Management, Toronto-Dominion Bank

Aug 2014 – Oct 2015

- Built and validated models for several critical modeling projects in treasury, operational risk, credit risk, and CCAR/DFAST
- Developed alternative methodologies to model losses using a variety of time series and statistical models in MATLAB
- Designed extensive back test, sensitivity and stress test to assess models performance and identify limitations and weakness
- Performed various model validation tasks and achieved high out-of-sample predictability

Intern, Quantitative Research Analyst, Dominion Bond Rating Service (DBRS)

May 2014 – Aug 2014

- Assisted senior researchers to develop proprietary quantitative models to calibrate probability of default and associated loss
- Conducted monthly model sensitivity and back tests, and greatly improved the existing codes' efficiency
- Maintained data quality controls in company database with SQL, R and Excel VBA

SUMMARY OF QUALIFICATIONS

- Computer: Python (Pandas/Numpy/Scipy), MATLAB, R, SAS, C++, Excel VBA, SQL
- Quantitative: Data mining, Time series, Monte Carlo simulation, Stochastic finance, Machine Learning, Numerical analysis, Optimization, PCA
- Finance: Portfolio construction, Risk management, Factor model, Industry research, Macroeconomics, Stress testing
- Work ethics: Detail-oriented, Teamwork, Leadership, Multitasking
- Interests: Yoga, Skiing (CSIA Level 3 Ski Instructor)



SHIMENG ZHANG

Anderson School of Management

Cell : 310-849-7256

E-Mail: zsm_simon@163.com

Function and Specialization

Specializes in derivative valuation along with equity technical analysis, quantitative and risk modeling

Languages

English, Chinese

Education, Licenses & Certifications

- MS in Financial Engineering
- BA in Physics
- CFA Level 3 Candidate
- Bloomberg BMC certificate

Technical Skills:

Bloomberg Terminal, R, MATLAB, Python,SAS,C

Backgrounds:

Shimeng is an optimistic student, enthusiastic about pursuing a career in finance. His Physics backgrounds gives him quantitative analytical skills. Combination of this skill and his finance knowledge makes him a strong candidate towards quantitative finance practitioner.

EDUCATION

UCLA ANDERSON SCHOOL OF MANAGEMENT

Los Angeles,CA

Master of Financial Engineering

2015-2016

- Fixed income models (Vasicek, BDT, String etc.), Statistics and Stochastic calculus, Risk Management(Credit & Market), Structured products
- Monte Carlo simulation, Statistical Regression

Nanjing University

Nanjing, CHN

Bachelors of Science, Physics

2011- 2015

Minor: Finance

- Probability and Statistics, Calculus and Differential Equations
- Simulation/Model Construction in MATLAB

University of Cambridge

Cambridge,UK

Summer 2014

- Quantitative Finance, Real Estate Modeling, Math

EXPERIENCE

KPMG LLP

NY, New York

Risk Consulting, FRM

2016.6-2016.8&2017.1-Present

- Perform valuations on various derivatives including commodity futures, fixed income derivatives such as amortizing interest rate swaps, cross currency swaps, interest rate cap/floor and other exotic structured notes
- Calculate Credit Value Adjustment (CVA) on derivative valuation. Experience in calculating credit exposures and probability of default.
- Regression Test for hedge effectiveness

Century Capital

Nanjing, CHN

Financial Engineering Intern

2015.5-2015.8

- Researched on a type of structured ETF in Chinese market and designed a hedging strategy to arbitrage.(Built simulation model to price)
- Back Tested the stock performance after resumption in Chinese Stock Market and analyze the returns stats (correlations, volatility and risk)
- Created a strategy to build a portfolio to deduce the company's tax payable
- Communication to traders to implement the strategies.

Ruichen Investment

Nanjing, CHN

Risk Quant Intern

2015.2-2015.4

- Collected market data needed from data vendors and build a database
- Graded listed companies in China based on KMV model

Xiaoyu (Edward) Zhang

310 Riverside Dr, Apt 1116, New York, NY 10025 | 631-561-5376 | edxyzhang@gmail.com

SUMMARY OF QUALIFICATION

Extensive risk management experience, from developing portfolio analytics to implementing credit models. Knowledge of Capital Management, DFAST, credit card risk and marketing analytics. Possess 7 years of experience in model building and validation as well as risk analytics. Fast-learning self-starter and team player, able to work under pressure.

EXPERIENCE

SUMITOMO MITSUI BANKING CORPORATION, NEW YORK, NY

AVP - Model Risk Group

Apr 2015 – Present

- Developed credit loss models for subsidiaries of the Bank Holding Company for DFAST Stress Testing purposes. Portfolio includes C&I, CRE and Loan & Leases.
- Reviewed and finalized the Capital Management Policy as well as other documentation in the Capital Management Framework including but not limited to: Stress testing policy, Capital Contingency Plan, Capital Management Committee Charter, DFAST narrative, DFAST model documentation etc.
- Documented over 40 models across the BHC.
 - Designed a standardized model documentation template.
 - Consulted model owners across all business units within the BHC and customized the model document according to their needs and specification. Models include but not limited to: credit risk grading models, market risk models, fair value models, VAR model etc.

BARCLAYS BANK PLC., NEW YORK, NY

AVP - Risk Analytics

Sep 2014 – Apr 2015

- Developed models for account take over fraud and implemented rejection rules in TSYS platform.
- Revamped the fraud strategies in Barclay Business Solution portfolio, improved overall fraud strategy effectiveness by over 20% in a short period of time.

Credit Risk Analyst

Nov 2011 – Sep 2014

- Re-designed and maintained the Small Business Credit Card NPV model, which plays a major part in all acquisition decisions. Calibrated forecasting assumptions based on actual portfolio performance on a quarterly basis.
- Designed and implemented strategies to create new sources of revenue for the Small Business portfolio. Relied on strong qualitative and quantitative data analysis to present initiatives for approval by product committees.
 - Utilized PD, EAD and LGD models to optimize credit line strategy for the Small Business portfolio by performing credit risk analysis across both utilization and risk segments.
 - Developed the Small Business high risk/dormant closure strategy by identifying unprofitable accounts before they go into default, which saved over £30MM in exposure and over £100k in operating cost annually.
- Conducted model validation and testing on numerous risk reward models to ensure model accuracy and compliance.

CHERNOFF DIAMOND & CO., LLC, GARDEN CITY, NY

Associate Consultant

Aug 2010 – Nov 2011

- Administrated over 50 defined benefit and defined contribution plans.
 - Conducted Top Heavy Testing, ADP/ACP Testing, Profit Sharing Calculation using participant data.
 - Consulted clients in plan operations including: pension law updates, participant eligibility, funding/contribution etc.
- Collaborated with the research team to create custom investment portfolios for institutional.

TARGET CORP, HAUPPAUGE, NY

Analyst

Dec 2008 – Jun 2010

- Developed merchandise protection strategies by performing data analysis on inventory data in target stores.
- Monitored and analyzed the transaction data from Target stores. Modeled and implemented alerts and strategies to minimize financial fraudulent activities taken against Target stores.

TECHNICAL SKILLS

- Software:** Proficient with MS Excel, Access, Word, PowerPoint, Visio, InfoPath, SharePoint, Schwab RT
- Statistical Programming:** SAS Certified Programmer for SAS9 and EG, proficient with VBA & SQL.

EDUCATION

STONY BROOK UNIVERSITY, STONY BROOK, NY

- Master of Science:** Applied Mathematics and Statistics
- Bachelor of Science:** Applied Mathematics and Statistics

December 2008
December 2008

MRGR

- Chee, Daniel (Weihui)
- Chen, Xi
- Cheng, Ling Yu Kelvin
- Chong, Lingcen (Cathy)
- Feizi, Bako
- He, Yun
- Hu, Junzhao
- Jia, Leah
- Kannan, Avan
- Kim, Namwoo
- Kuo, Izzy
- Li, Ling
- Li, Shi
- Li, Xintong
- Lu, Yigong
- Luo, Xiao Tony
- Shi, Yuqian
- Song, Yu
- Tai, Yirui
- Tian, Wen
- Wang, Chen
- Xie, Zijian
- Xue, Claire
- Yang, Lingfei
- Ye, Long
- Zeng, Chen
- Zhang, Fan
- Zhang, Xiaoran Sharon

Daniel (Weihui) Chee, FRM

41-41 43rd St, Sunnyside, NY11104

+1 917-683-7879 | daniel.weihui.chee@gmail.com

EXPERIENCE

Mizuho Americas, Capital Management Vice President (Oct 2016 – Present)

New York, NY

- Led the banking book team on modeling the balance sheet and revenues of all wholesale loans and leases within Mizuho Bank (USA).
- Developed a threshold analysis to determine a cut-off that decide which models should be developed via a regression framework using macroeconomic variables, and which should be modeled using a judgmental approach.

UBS, PPNR Modeler

New York, NY

Associate Director (Dec 2015 – Oct 2016)

- Modeled and projected revenues for Wealth Management Americas (WMA) which accounts for 69% of total UBS revenues, in preparation for CCAR 2017. Also modeled the revenues for Clearing & Execution (C&E).
- Developed alternate models for WMA and C&E to enhance the current models. Worked with business heads directly to better understand the intricate processes that govern revenue generation.

PRICEWATERHOUSECOOPERS (PwC), Financial Services Risk Consulting

New York, NY

Senior Associate (Jan 2013 – Dec 2015)

- Managed an Operational risk CCAR engagement for a leading investment bank. Analyzed internal data, key vulnerabilities and idiosyncratic risks of bank to quantify and develop a suite of idiosyncratic scenarios that collectively capture the bank's material risks. Verified processes are in line with best practices of other banks.
- Supervised a PPNR modeling engagement for a foreign bank. Gathered historical time series data for the income statement and balance sheet, built regression models for the various line items using R, and worked with the lines of businesses to incorporate management judgment.
- Reviewed and validated Economic Capital frameworks, (AMA) operational risk models, PD/LGD scorecard models for commercial and industrial obligors, VaR models and deposit decay models in multiple engagements. Led client meetings, communicated findings and recommendations, and produced client deliverables.

ROOSEVELT MANAGEMENT COMPANY

New York, NY

Quantitative Research Summer Intern (May 2012 - Aug 2012)

- Modeled and forecasted real estate loan roll rates using SAS to enable the fund to bid more competitively for new pools of loans and improve performance.

UNITED OVERSEAS BANK

Singapore

Credit & Country Risk Manager (Jan 2011 - Jul 2011)

- Analyzed the PD, LGD, EAD and RWA of the Bank's portfolio and conducted stress testing on the portfolio to assess potential losses from plausible adverse economic events using Excel VBA.
- Implemented and enhanced the Bank's Economic Capital model using Excel VBA and SAS.

Credit & Country Risk Senior Officer (Aug 2010 - Dec 2010)

- Collaborated with the market risk and liquidity risk teams to develop and maintain the Bank's ERM system.

MINISTRY OF EDUCATION, SINGAPORE

Research and Evaluation Officer (Jan 2010 – Aug 2010)

- Collaborated with international research bodies on the conduct of international studies in schools. Projects include Progress in International Reading Literacy Study (PIRLS).
- Interpreted statistical reports to derive reasonable conclusions and tabled key policy findings to senior Management using SAS. Projects include Mother Tongue 2010 Review and National Education 2010 Review.
- Evaluated and recommended best teaching practices which supported the development of 21st Century skills for the Assessment & Teaching of 21st Century Skills project.

MERIDIAN JUNIOR COLLEGE, SINGAPORE

Education Officer (Jul 2007 – Dec 2009)

- Lectured various topics in physics e.g. Oscillations and Alternating currents each year.
- Led various remedial programs for the weaker students as well as analyze past year examination papers for trends in key concepts and questions that are most often tested.
- Budgeted and planned the programs of two extra-curricular clubs for the students – Choir and Health & Fitness Club.
- Initiated a website for the physics cohort and coordinated all online learning activities.

NATIONAL SERVICE, SINGAPORE (Jul 2005- Jun 2006)

- Mandatory military services for all Singaporean males.

EDUCATION

NEW YORK UNIVERSITY (2011- 2012)

New York, NY

The Courant Institute of Mathematical Sciences

Masters in Mathematics of Finance

NATIONAL INSTITUTE OF EDUCATION (2006- 2007)

Postgraduate Diploma in Education (Physics and Math)

Singapore

NATIONAL UNIVERSITY OF SINGAPORE (2001-2005)

Singapore

Honors Degree in Physics (First class) with a minor in Mathematics, GPA 4.55/5.00

- Awarded Lijen industrial medal for best honors year project: Wave-particle duality in multi-path interferometers
- Publication: “Wave-particle duality in multi-path interferometers”, B.-G Englert, D. Kaszlikowski, L.C. Kwek and W.H. Chee, International Journal of Quantum Information, 6.1 (2008) 129-157.

SKILLS/OTHER

- Programming languages: SAS, R, SQL, Matlab, VBA and Java.
- Software: Bloomberg and Mathematica.
- Passed all three levels of the CFA examination.
- Passed both levels of the FRM examination.

XI (RICH) CHEN

31 River Ct Apt 616, Jersey City, NJ, 07310 Tel: 551-227-6698

Email: gausschensun@gmail.com ; Web: www.linkedin.com/in/richxichen

Education:

RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY	New Brunswick, NJ
MS in Mathematical Finance	2012-2014
FLORIDA STATE UNIVERSITY	Tallahassee, FL
PhD of Science, Computational Science specialized in Applied Mathematics	2007-2012
NANKAI UNIVERSITY	Tianjin, CHINA
MS in Computational Mathematics	2003-2006
HARBIN INSTITUTE OF TECHNOLOGY	Harbin, CHINA
BS in Mathematics & Applied Mathematics	1999-2003

Experience:

Hands-on implementation experience and strong programming skills in **C/C++/MATLAB/Python**; Strong derivatives pricing knowledge with some cross-assets experience; **PhD** in a technical discipline; Strong knowledge of derivatives products, market conventions and numerical techniques employed in derivatives pricing models, **Monte Carlo Methods**, **Finite Difference Methods** and Finite Element Methods. Strong knowledge in **Stochastic Calculus**, **Monte Carlo Methods** and **PDEs**.

2015/06 - Present **MARKET RISK MODEL VALIDATOR IN BANK OF AMERICA, MERRILL LYNCH**

Validated the Credit (Hybrid) VaR/SVaR model, CCR RWA CCAR model and CSA Collateral Shocking CCAR Model. Familiar with banking daily work routine as the model developer or model validator.

2014/06 - 2014/08 **MODEL VALIDATION INTERNSHIP at NUMERIX**

Developed model validation tests for **FX/Equity/IR/Commodity/Credit** Models:
EXCEL (VBA) code for Delta-Vega Smoothness Test, Roundtrip Calibration Test, Martingale Test;
C# code for PDE Test (Differential Form); **MATLAB** code for PDE Test (Integral Form).

2014/04 - 2015/06 **RESEARCH INTERNSHIP at FLORIDA STATE UNIVERSITY**

Improving the developed **C++/MATLAB** codes for pricing European Option under Heston's Stochastic Volatility Models in Master's thesis and preparing for the paper publication: "**High Accuracy** Finite Element Methods for **Option Pricing** under **Heston**'s Stochastic Volatility Model.".

2012/08 - 2014/01 **MASTER STUDIES at RUTGERS UNIVERSITY**

Developed the **C++/MATLAB** codes for pricing European/American/Asian/Barrier Option by Monte Carlo Methods (Antithetic Variates/Control Variates) and Finite Difference Methods & Finite Element Methods.

2007/08 - 2012/08 **PHD STUDIES at FLORIDA STATE UNIVERSITY**

Developed the code for solving (Stochastic) Partial Differential Equations (Elliptic, Parabolic, & Navier-Stokes Equations) by Finite Element Methods, Finite Difference Methods, Finite Volume Methods and Stochastic Galerkin Methods. **Published the first paper** for solving the Deterministic & Stochastic Nonlocal Problem – Peridynamics Models (New Model of Mechanics in 2000) in 1D & 2D, **implemented related verification process, and successfully recovered the optimal convergence rate** by the following methods:

- Finite Element Methods, Discontinuous Galerkin Methods
- Stochastic Collocation Methods, Sparse Grid Methods, Monte Carlo Methods

Publication:

- Chen X., Gunzburger, M. Continuous and discontinuous finite element methods for a Peridynamics model of mechanics. Computer Methods in Applied Mechanics and Engineering, 200: 1237-1250, 2011.

Computer Skills:

- C/C++, C#, FORTRAN, Python, Windows, Linux, Mac OS
- EXCEL (VBA), MATLAB (PARALLEL), MATHEMATICA, MAPLE, SAS, R

Ling Yu (Kelvin) Cheng, FRM

3383 155th Street, Queens, NY 11354

mryuyu1111@hotmail.com

917-388-5501

EXPERIENCE

Société Générale

Quantitative Advisor

New York, NY

June 2016 – Present

- Responsible for Independent Model validation and performance monitoring such as assessing the conceptual soundness, evaluating model assumptions and data integrity, testing model numerical, statistical, and/or computational accuracy, performing outcomes analysis, and reviewing model governance and control process
- Assess the mathematical, statistical, theoretical and conceptual soundness of each model. Verify model performance, i.e. correct implementation, limiting behaving, and response to stress/extreme input condition-stress testing

Citigroup

Risk Developer (Contractor)

New York, NY

Dec 2013 – Jan 2016

- Refactor and maintain the Run-Manager project that gets trade data from various business lines of Citi, apply shock values based upon scenarios, calculates stressed losses and loan loss reserves metrics and sends to Reporting
- Implement Commercial Real Estate model and AFSHTM (available for sale & hold for maturity) models
- Implement models to consume various macroeconomic factors (GDP, unemployment rate and etc.) to generate transition matrices, loss given default and credit conversion factor for wholesale credit analytics model
- Implement sensitivity analysis framework that allows system to adjust macro-economic factors once at a time to conduct impact analysis during stressed testing

FDM Group Inc.

Developer

New York, NY

July 2013 – Jan 2016

- Use shell scripting to create a safe-rm command that persists deleted files to a recycle bin
- Modify an existing trading platform database design and create complex SQL queries to extract data for reporting
- Design and implement a trading platform application using Core Java, Spring, Servlets, Javascript, HTML and etc.
- Implement Route Planner, a Java web application that takes two stations as input and output one or more shortest path(s) by using the Dijkstra method. It will take a XML file that contains all the station names and lines in a subway system and can be applied to any of the subway system in the world. In this project, we are given the London underground system

AWARDS & CERTIFICATIONS

Chartered Financial Analyst Institute

- Passed CFA Level I

June 2016

GARP, Global Associate of Risk Professionals

- FRM Program – Passed Parts I & II

May 2015

Actuarial Exams, the Society of Actuaries

- Probability/1, Financial Mathematics/2, Models for Financial Economics/3F

Nov 2012

Oracle Certified Professional Java SE 6 Programmer, ORACLE

- 1Z0-851 Java Standard Edition 6 Programmer Certified Professional Exam

Nov 2013

Skills

- **Programming:** C++, Java, Unix (vi editor, shell scripting), SQL, R, Python, Matlab, Microsoft Office (Word, Excel, PowerPoint)
- **Languages:** Fluent in English, Cantonese and Mandarin

EDUCATION

University of California, Berkeley

Preprogram in Financial Engineering

Berkeley, CA

Jan 2016 – Mar 2016

Baruch College CUNY

BA, Mathematics, Major GPA 3.87/4.00

New York, NY

Dec 2012

Residential Status

- Permanent resident (U.S. Green card holder), Hong Kong Citizen

Lingcen (Cathy) Chong, FRM

10 Byron Place, Apt 309, Larchmont, NY 10538 • (917) 821-4038 • lingcen.chong@gmail.com

WORK EXPERIENCE

PricewaterhouseCoopers, Senior Associate – Advisory, NYC, NY, USA Jan 2013 – Present

- Continuously received top performance ratings and received an early promotion.

Mark-to-Market Derivatives Pricing

- Performed independent valuation of derivative portfolios for global investment banks and hedge funds. The derivatives instruments includes:
 - Fixed Income Derivatives – interest rate swaps, interest rate swaption, caps and floors, inflation swaps.
 - Equity Derivatives – vanilla options, digital/binary options, knockin/knockout, Asian options, basket options, equity total return swaps, variance/volatility swaps.
 - FX and Commodity Derivatives – FX forwards, FX options, commodity options, commodity forwards.
 - Credit Derivatives – CDS, CDX, CD swaption, recovery lock, synthetic CDO.
- Performed proxy Credit Valuation Adjustment estimations based on counterparty Credit Support Annex agreements.
- Documented step-by-step valuation approaches for complex instruments such as binary options and hybrid options.

Model Development

- Built Risk Weighted Asset unsecured loan delinquency forecast models for a major bank, covering both international and domestic portfolios. Performed comprehensive model testing, communicated with the model validation team and proceeded to production.

Model Validation

- Validated an Economic Capital Model for consumer portfolio as per SR11-7 guidelines. Reviewed conceptual soundness, replicated Probability of Default/Loss Given Default calculations, and performed output analysis of model outputs.
- Performed quantitative assessment and validation of CCAR stress testing models. Performed internal data analysis, regression model assessments, process robustness, and reporting adequacy testing.
- Reviewed and validated the Wealth Management - Retirement Planning model in accordance with the client's internal policy and SR11-7 requirements. Replicated asset returns simulations and performed output sensitivity analysis.
- Conducted independent review and output analysis of credit migration matrices, SunGard's Bancware ALM and SunGard's Adaptiv VaR model as per CCAR/DFAST guidelines.
- Led client meetings, communicated findings and recommendations. Drafted model validation test plans and reports.

Citigroup, Market Risk Summer Analyst, NYC, NY, USA Jun 2012 – Dec 2012

- Developed VBA applications to streamline stress testing and risk reporting for the Citi Corporate Treasury AFS portfolio.

OPSEU Pension Trust, Investment Research Intern, Toronto, ON, Canada Jan 2010 – Apr 2010

- Selected parameters and constructed a Fama-French factor model to forecast expected portfolio returns.
- Conducted research on historical returns, asset allocation and investment strategies, and developed a peer pension comparison analysis.

EDUCATION

Cornell University, Ithaca, NY, USA Sep 2011 – Dec 2012

Master of Engineering, Financial Engineering GPA: 3.7

University of Toronto, Toronto, ON, Canada Sep 2007 – Aug 2011

Bachelor of Business Administration, Finance and Statistics GPA: 3.7

SKILLS

- **Programming Skills:** Excel VBA, Bloomberg, Python, R, SAS, Matlab, Fincad, Numerix
- **Certificates:** Financial Risk Manager (FRM) charterholder, Chartered Financial Analyst (CFA) Level III candidate

Bako Feizi

20 Livingston Ave. Unit 603
New Brunswick, NJ 08901

cell: +1 (201) 772 - 7494
bfeizi@gmail.com

SUMMARY

- Excellent quantitative and analytical capabilities augmented by years of experience in developing sophisticated mathematical models and drawing practical insights from large data sets
- A strong knowledge of Finance, financial products and markets demonstrated by top performance in the MBA program in Finance at The Wharton School
- Proficient in programming with MATLAB, R and C++
- Versatile leadership style demonstrated by a track record of delivering results in a broad range of functions in engineering, management consulting, academic research, teaching and entrepreneurial ventures
- Excellent ability to clearly communicate complicated concepts in simple terms to a variety of stakeholders with different backgrounds

EDUCATION

THE WHARTON SCHOOL, UNIVERSITY OF PENNSYLVANIA

Philadelphia, PA

M.B.A. in Finance

2013 - 2015

- Graduated with Honors (top 20%) | Director's List Fall 2014 and Spring 2015 (top 10%)
- GMAT: 730 (96th percentile)

NEW JERSEY INSTITUTE OF TECHNOLOGY

Newark, NJ

Ph.D. in Structural Engineering

2006 - 2011

- GPA 4.0/4.0

IRAN UNIVERSITY OF SCIENCE AND TECHNOLOGY

Tehran, Iran

B.Sc. in Civil Engineering

1996 - 2000

EXPERIENCE

ZS Associates (A leading marketing and sales analytics consulting firm)

Princeton, NJ

Business Consultant

Jul 2015 – Oct 2016

- Developed a mathematical model (using secondary sales data) to simulate and forecast the payout of a sales force incentive compensation plan for the launch of a major diabetes drug
- Devised a mathematical model by leveraging secondary and primary sales data to inform the design of a group purchasing organization (GPO) pricing strategy for a prominent pharma company
- Performed promotion response analysis (ROI analysis using multivariable regression analysis) to assess the effectiveness of a pediatric education program using a combination of primary and secondary data sources
- Identified main opportunities for a portfolio of rare blood disease drugs to defend against external market events and increase total sales by 25% within next five years
- Developed a five-year strategy for expanding and optimizing the impact of a leading physician and patient education program sponsored by a large pharma company

AECOM (A Fortune 500 engineering firm)

New York, NY

Lead Structural Engineer

Mar 2010 – Jul 2015

- Selected by the Chief Tunnel Engineer to lead AECOM's tunneling team (7 engineers and drafters) in a competitive tender design for the \$2 billion Ottawa Light Rail Transit Project. Delivered the top tunneling design among 5 international joint ventures

Senior Structural Engineer

- Led the team (2 to 3 engineers) responsible for creating linear and nonlinear Finite Element Analysis models to

assess and forecast the level of stress in underground structural systems under uncertain conditions such as ground collapse, fire and flooding

Structural Engineer

- Developed various mathematical models, technical drawings, reports and presentations that communicated complex engineering solutions in simple, clear and concise manner to the clients and different stakeholders

NEW JERSEY INSTITUTE OF TECHNOLOGY

Newark, NJ

Research and Teaching Assistant

Aug 2006 – Mar 2010

- Created various models in MATLAB, using risk analysis theory and Monte-Carlo simulation, to forecast the probability of collapse in structures subjected to random extreme events such as earthquakes
- Designed an optimization algorithm to systematically minimize construction cost of structures subjected to random extreme events
- Performed statistical study to evaluate the effectiveness of the above approach in alleviation of structural damage
- Developed two numerical schemes using Finite Difference Method to solve two systems of coupled hyperbolic and parabolic Partial Differential Equations
- Authored and/or presented 9 scholarly articles in international journals and conferences
- Received highly favorable ratings for teaching two undergraduate level, one Masters level and one PhD level course

ADDITIONAL INFORMATION

- Recognized by the US Government through the highly selective *National Interest Waiver Program for Individuals with Exceptional Ability* and granted the U.S. Permanent Residency (Green Card) for developing an innovative mathematical model to mitigate risk of collapse in systems (e.g. buildings) exposed to random extreme events (natural disasters)
- Co-founded an educational NGO that helped over 450 high school seniors to make informed decision about their majors in college
- Invited to judge scholarly papers by 7 renowned international journals in structural engineering
- Interests: Soccer, skiing, and classical music
- Relevant MBA Courses: Corporate Finance, Competitive Strategy, Statistics, Capital Markets, Corporate Valuation, Financial Derivatives, Investment Management, Mathematical Modelling w/ Application in Finance, International Corporate Finance, Finance in Middle East, Impact Investing and Corporate Restructuring

Yun He

Cell: 201-668-0307 | Email: heyun85@gmail.com

QUALIFICATION	<ul style="list-style-type: none">▪ Well qualified Financial Engineering Master with diverse experience in investment bank and financial risk management environments▪ Excellent hands-on skills in model validation, governance, risk assessment, qualitative & quantitative analyzing▪ Technically proficient with variety of programming languages and MS Excel, Access, etc.▪ Motivated, self-started, attention to details, strong personality, strong cross divisions collaboration ability, teamwork spirit and multi-tasking skills
EXPERIENCE	<p>Associate / AVP – Model Risk Management BNP PARIBAS – CUSO RISK IRC 12/2014 – Present</p> <ul style="list-style-type: none">▪ Model Risk Management<ul style="list-style-type: none">- Developed BNPP Model Risk Management Framework for the Combined US Operations (CUSO) scope including target operating model, policy, standards, model inventory, appetite reporting, IT system, training, and etc.- Assisted in design the preliminary risk rating methodology for models- Developed model risk management workflows including model identification, attestation, recommendation tracking, etc.- Identifying and reviewing potential models across the bank including CCAR, Risk (market, credit, operational, and etc.), ALM Treasury, Compliance, Valuation, Resolution Plan, VaR, and etc.- Governing validation and remediation process- Coordinating CCAR model landscaping project- Coordinating senior management reporting for Board of Directors and Validation & Control Committee▪ Project Management<ul style="list-style-type: none">- Managed Model Risk workstream under the IHC project- Coordinated project task inter-relations with other workstreams including CCAR, Market and Counterparty Risk, VaR/sVaR, Risk Identification, Budgeting, and etc.- Managed IHC project senior management reporting
	<p>Associate Advisory KPMG LLC – Financial Risk Management (FRM) Group 09/2012 – 12/2014</p> <ul style="list-style-type: none">▪ Model Validation (Client projects)<ul style="list-style-type: none">- Led individual validation for models including budget planning, stress testing, pricing Model, and etc.- Assessed models quality and soundness in aspects of documentation, data inputs, assumptions, methodology, output, reporting, and controls according to the risk rating- Developed benchmark models with same data and distinct methodology to reproduce the result in various platforms including Excel (Marco), Matlab, SAS, and etc.- Drafted validation reports include findings, recommendations, and limitations, as well as detailed effective challenges, testing procedures and results for each perspective mentioned above▪ Model Governance (Client projects)<ul style="list-style-type: none">- Assisted in field design and development of model inventory- Coordinated model identification process across the firm- Developed and implemented the preliminary model risk rating methodology in Excel using Macros- Assisted in defining operational controls and effective challenge activities for model validation procedure- Assisted in model risk training for key stakeholders, topics include policy and procedure, risk rating

methodology, and model inventory

- **Project Management**

- Managed workstreams in a mixture of projects cross Merger and Acquisition, Insurance Risk, Operation Risk, Market Risk, Model Risk, and etc.
- Coordinated in drafting client project proposal
- Managed project resourcing and budgeting
- Documented and managed project deliverables and client sign-off

Quantitative Analyst Intern

01/2012 – 04/2012

ViewTrade Securities – Algo Trading Group

- **Algorithmic Trading Model Development**

- Created SQL queries for data analysis and reporting
- Analyzed current value of the portfolio exposure
- Analyzed and decomposed market risk to optimize the modeling risk management performance with stress testing and VaR
- Built short term trinomial tree interest rate model to forecast interest rate
- Implemented and tested trading strategy models
- Integrated Level1 and Level 2 trading data set from NASDAQ to optimize model testing performance

Risk Analyst

08/2011 – 12/2011

Starstone Insurance (Torus Insurance) – Risk Management Department

- **Business Risk Assess**

- Developed Risk Assessment Calculator
- Implemented and managed the calculator for VaR and Control Effectiveness calculation under various risk scenarios in 4 regions
- Oversight risk reporting for Board of Directors

- **Policy Exposure Analysis**

- Developed Exposure Report Generation System using Access and VBA to identify and report company's exposure risk
- Oversight monthly policies and portfolio risks assessment
- Oversight the exposure reporting and reported to the CRO

Fixed Income Analyst

02/2011 – 05/2011

Jefferies & Company, Inc. - Fixed Income Technology Group

- **US Treasury Pricing Modelling**

- Developed the Svensson Extension (NSS) model for US Treasury Notes and Bonds pricing
- Investigated various mathematical methodologies to calibrated the model parameters to meet real-time calculation requirement
- Back-tested and optimized model scripts
- Documented the process, database dependencies and Matlab function calls
- Provided daily data report and analysis support to multiple functional areas

SKILL

Programming: VBA (Macros), Matlab and SQL

Software: Excellent Microsoft Word, Excel, PowerPoint, Visio, and Access skills

Language: English and Chinese (Mandarin)

EDUCATION

FRM Level II Candidate

Stevens Institute of Technology, Hoboken, NJ

- M.S., Financial Engineering, May 2011
- Graduate Certificate, Financial Risk Engineering, May 2011

Changsha University of Science and Technology, China

- B.A., Economics, June 2008

JUNZHAO HU
31 RIVER COURT APT 321 JERSEY CITY 07310
PHONE: (515) 708-7046
E-MAIL: JUNZHAOHU@HOTMAIL.COM

EDUCATION

Iowa State University <i>Co-major Ph.D. of Statistics and Applied Math</i>	Ames, Iowa, United States Expected June 2017
Iowa State University <i>Master of Science, Applied Mathematics</i>	Ames, Iowa, United States Feb 2016
Zhejiang University <i>Master of Science, Mathematics</i> First Class Scholarship 2009-2010	Hangzhou, Zhejiang, China Jun 2010
Hebei Normal University <i>Bachelor of Science, Mathematics</i> Excellent Student Award 2005-2008	Shijiazhuang, Hebei, China Jun 2008

WORKING EXPERIENCE

AMERICAN EXPRESS <i>Enterprise Model Validation Group</i>	New York City, NY, United States Nov 2015 - Now
<ul style="list-style-type: none">Validated a series of model including credit risk model, muni-yield model, liability pricing model, HYSA pricing and anti-money laundering.Obtained a thorough understanding of modeling and model validation process: data description, checking and transformation, outlier and missing value detection and remediation, segmentation, variable and model selection, out-of-sample testing and back-testing, sensitivity analysis, ongoing monitoring.Independent accomplished model validation reports, developed strong report writing skill.Actively communicated with modeling team, internal audit and the regulators.Familiar with CCAR and DFAST.	

MUFG UNION BANK <i>Wholesale and Retail Group Intern</i>	San Francisco, CA, United States May 2015 - Aug 2015
<ul style="list-style-type: none">Independently developed models of the quarterly time series default rate (PD) and loss given default rate (LGD) with respect to the quarterly macroeconomic variables for five different portfolios in the retail group using SAS.Proposed a new method for evaluating the EAD (Exposure at default) using hybrid model LEQ/CCF by decision tree method in the wholesale group.	

TEACHING EXPERIENCE

<i>Teaching Assistant at Iowa State University</i>	Ames, Iowa, United States Aug 2010- Dec 2015
<ul style="list-style-type: none">Interacted with and encouraged students to excel academically through the teaching of various stand alone courses including Calculus, Calculus for Business and Social Sciences, College Algebra, Trigonometry and Analytic Geometry.	

REVELENT SKILLS AND CERTIFICATES

- SAS, R, MatLab, C++, Latex, SQL, Excel, Word
- Passed the first two Actuary Exams (P, FM)
- Native in Chinese and fluent in English.

LEAH (RUIYAN) JIA

155 Claremont Ave, Apt 658 • New York, NY 10027 • 646-400-3639 • rj2417@columbia.edu

EDUCATION

COLUMBIA UNIVERSITY

New York, NY

02/2016

M.S. in Operations Research, GPA 3.5/4.0

- Coursework: Equity Derivatives, Global Capital Markets, Risk Management, Corporate Finance, Stochastic Model, Decision Model, Applied Consulting, Game Theoretic Business Strategy
- Certificate: CFA Level II Candidate, FRM Level II Candidate

ZHEJIANG UNIVERSITY

Zhejiang, China

06/2014

Honor B.Eng. in Electrical Engineering & Minor in Entrepreneurial Management, GPA 3.8/4.0

UNIVERSITY OF CALIFORNIA, LOS ANGELES

Los Angeles, CA

08/2011 – 09/2011

Summer Exchange program, GPA 4.0/4.0

- Coursework: Probability and Mathematical Statistic, Mathematical Modeling, Economics, Entrepreneurial Financing

EXPERIENCE

DIA ASSOCIATES / AMERICAN EXPRESS

New York, NY

04/2016 – 07/2016

Data Consultant

- Provided quantitative optimized strategies for a Fortune 100 company; our model achieved a significant increase in revenue
- Integrated raw data from three different databases to create metadata with 39 variables and 250M+ records
- Analyzed 100+ profile variables to generate appropriate model inputs
- Calculated and validated model scores for 300M+ records in SQL/SAS/Hadoop under Linux environment
- Tracked and presented monthly model performance to client, create model methodology documents for client deliverables

CRYSTAL BROOK ADVISORS

New York, NY

03/2015 – 07/2015

Asset Management Associate Intern

- Communicated with clients about investment needs, conducted risk tolerance test and analyzed their current asset allocation
- Evaluated risk and return characteristics to screen thousands of mutual funds from Morningstar independently
- Created multi-factor scoring system and conducted in depth research and benchmark analysis to select target funds
- Rebalanced portfolios, developed structured asset allocation strategies, drafted a 13 page report for client review
- Composed weekly newsletters with marketing team for current and prospective investors, which raised 10% subscribers

MCKINSEY & COMPANY

Shanghai, China

01/2014 – 02/2014

Consultant Assistant

- Performed research for a new product design project for a leading logistics company in China
- Composed two case studies on delivery service on two international leading companies by applying literature research, conducting two expert interviews and making several cold calls
- Designed six feasible plans for product strategic improvement based on competitive analysis within local market and client internal capabilities

CITIC CONSTRUCTION CO., LTD.

Beijing, China

07/2013 – 09/2013

Investment Summer Analyst

- Collaborated with a real estate investment project in Nigeria in cooperation with International Finance Corporation (IFC)
- Conducted comprehensive market research on Nigerian real estate industry and foreign investment policy by studying public reports, government documents and industry websites and collecting data from various sources
- Presented research summary to team, wrote a 28 pages report; the results were important for investment decision making

LEADERSHIP

FORUM FOR AMERICAN/CHINESE EXCHANGE AT STANFORD

Stanford, CA & Zhejiang, China

04/2011 – 04/2013

Vice President

- Organized 2012 “On Common Ground” China Conference, invited 10 distinguished speakers including Chairman of Volvo and a U.S. Major General (retired), coordinated 40 international delegates from top universities
- Raised \$8,000 for 2012 “On Common Ground” China Conference as well as daily events

ADDITIONAL INFORMATION

Skills: Financial Modeling, Excel (VBA, Pivot Table, Solver), Bloomberg, Morningstar, SAS, SQL, R, Hadoop, Tableau

Entrepreneurship: Initiated and led a five-person team independently for a month-long public service project in Rajgarh, India

Interests: Basketball (Campus MVP), travel (150+ Cities), diving (Certified Open Water Diver), flute (National Highest Level)

Saravanam Kannan

Phone: 718 749 2318 Email: avan@mointr.com

SUMMARY

Leadership and expertise in model validation and governance for models in Credit Risk, CCAR, Derivative Pricing and Investment Research; financial modeler with over 19 years of modeling experience in Economics, Market and Credit Risk Models, Trading Pricing Models, Securitization (payment and default) and Principal finance (Peer-to-Peer lending). Excellent programming skills in R-Software, Python, and SQL.

Career interests include model implementation and validation, quantitative analysis/modeling, assessing capital market and treasury activities relative to industry practices and regulatory guidance, development and review of financial risk management policies/procedures where I can apply my quantitative skills, understanding of academic research, passion for policy initiatives and building strategies for non-market competition.

PROFESSIONAL EXPERIENCE

Jeffries, New York City, NY and London, the U.K

Sep 2016 – Present

Lead – Model Validation - Internal Audit:

- Evaluate Model Risk Management, Global Model Validation and Governance framework ensuring continuous improvements for model risk management (Input and output data statistical properties analysis, model & vendor selection process, constructive challenge to the model methodology and model verification & version control) in light of industry best practice, materiality of the firm's model risk and regulatory requirements;
- Evaluate model validation standards and requirements as set out in the Model Governance policies are adhered to from model submission to the model validation report;
- Perform policy analysis, identify gaps and make policy recommendation to meet Gold standard for external regulatory expectations;
- Assess the activities of the Model Validation Team to conduct effective model risk management (e.g., Communication with relevant model owners which includes business and control functions and building the appropriate interactions.)
- Evaluate the work of the Model Validation Team and ensuring they have appropriate development, training and skills to carry out the team's activities; and
- Communicating firm's model risk status to senior management – delegation of authority of the Internal Audit for making decisions on model risk management issues and representing Internal Audit when necessary.

KPMG, New York City, NY

Apr 2015 – Aug 2016

Manager – Advisory – Market/Treasury Risk

- Led teams of validators and consultants, validated internal as well as vendor models (e.g., Calypso, RiskMetrics, Numerix, Murex, Bloomberg, EQF etc.,) used in various lines of business for CCAR stress testing purposes. (Modeling techniques include Discounted Cash Flows, Hull-White one/two factor models, Black-Scholes, shifted SABR, etc.,);
- Led and contributed to the independent implementation of econometric models, including variable selection, testing of stationarity, normality, heteroscedasticity, multicollinearity and co-integration. Regression model inventory includes HPA, Unemployment Rate, PPNR, mortgage PD and LGD models;
- Led all aspects of model review and validation, model ongoing monitoring and governance covering all aspect of SR11-07/OCC 2011-12 in conjunction with Enterprise Model Risk Management Policy;
- Effectively challenged the model developers in model assumptions, limitations, mathematical framework and implementation. Managed model risk by ensuring that the model exposure, market conditions and model restriction are not materially different from the approved model (Model Validation);
- Led and contributed to pricing model coding using R. Models include Libor market model, structured notes modeling bilateral defaults under CVA framework, and FX and IR for EM;
- Led regulatory engagement for all aspects of Model Risk Management Framework;
- Worked with all stakeholders (Trading, Credit Risk, Market risk, Treasury and Finance) to actively identify emerging model risk issues; and
- Built reserve models and recommended operational reserve to United Nations agency Executive Boards.

BCG-Platinion, New York City, NY

June 2014 – Mar 2015

Expert Adviser / Senior Quantitative Analyst

- Lead Wholesale Credit CCAR administration for MRAs and MRAs from FRB and OCC;
- Assist Risk Management Committee, Audit Committee, and Board Risk Committee in decision making of

- Develop strategic plan for overhauling model governance framework to comply with Federal Reserve Board and Financial Conduct Authority (the U.K) regulations;
- Draft model submission policy for gathering model inputs, implementation details, theoretical justification, and intended use;
- Assisted in loss forecasting initiatives of a major commercial bank by validating models for Probability of Default, Loss Given Default and Exposure at Default using Monte-Carlo simulation and Logistic Regression as part of the CCAR efforts to stress test over 50,000 Wholesale Credit (CRE, C&I, ML) loans over different time horizons;
- Managed validation of revenue models implementation overlay of Global Markets at a large bank holding company (FED SR 11-7). First difference first Order linear regression (AR(p)) models that model absolute revenue levels based on two explanatory variables, stationarity validation using KPSS, Phillips-Perron, and Augmented Dickey Fuller, variable significance, mode p-value, serial correlation (Durbin Watson, Breusch godfrey), multi-collinearity (Variance Inflation Factor), residual heteroscedasticity (Breusch-Pagan, White's correction), residual normality (Jarque Bera), Back-tests (Out of Sample, Jack-knifing), stability of model predictive power, out-of-sample error, model sensitivity, stressed scenario vs outliers for balance sheet, income statement and PPNR revenue models; and

Bank of America, Charlotte, NC **Nov 2013 – May 2014**

Senior Quantitative Analyst

- Validation of pricing and risk models including Rate – FX hybrid model for pricing XVA and PFE computation, Rate-Credit hybrid model for pricing structured notes, shifted SABR model for pricing interest rate derivatives, and multi-curve framework for pricing interest rate and cross currency swaps, Hull-White Two Factor model for CVA (FI Flow), and Market Risk models for VaR.
- Forecasted revenues for CT&CI portfolio systematically using Autoregressive-Moving average (ARMA(p,q) Box-Jenkins (1976)). The model parameters are estimated using maximum likelihood estimation process and number of parameters identified using information criteria (AIC, & SBIC). And also forecasted ARMA models and determining whether a forecast is accurate or not (MSE, MAE, (A) MAPE).

247 Media Inc., a WPP Company, New York, NY **Jul 2010 – Sept 2013**

Senior Adviser/ Senior Quantitative Analyst – Financial Planning and Analysis

Total M&A Asset Valuations: \$800 Million

- Business default model to empirically predict control for time for default, loan contract structure, macroeconomic and industry risk characteristics. Built scenario designs to validate the prediction of business default behaviors
- Built Principal Component Analysis (PCA) models to identify various risk factors within umbrella group (317 agencies)
- Build valuation models for merger and acquisition (VBA, R and SQL)
- Build risk models for known and unknown risks such as corporate compliance, cyber security and reputation risks
- Create Balance Sheet/Financial Analysis models to support and enhance business decision making to support Office of the CEO

Citigroup (Automated Trading Desk) New York, NY **Jun 2009 – Jun 2010**

Senior Consultant - Trading Strategies

Total Portfolio Size : \$70 Million

- Create Statistical and mathematical models and trading strategies – High Frequency trading strategies(SAS, VBA)
- Lead efforts in building, enhancing and maintaining new and existing strategies for different trading business
- Analyze, design and develop trading strategies for multiple exchanges (eg. NYSE, Nasdaq, Direct Edge etc.)
- Build non-market trading strategies to incorporate halt requirements, regulatory and compliance requirements
- Led client and consumer risk specific trading strategies for exchange services for Direct Edge Exchange service, DE Shaw, LEVEL VIRTU/ETF, Interactive Broker, Barclays, PDQ, etc.

Lehman Brothers Inc., New York, NY **Dec 2004 – Mar 2009**

Senior Analyst, Credit Risk Analytics

Total Portfolio under Risk Analytics: \$20 Billion

- Create mathematical models for mortgage products risk analysis (VBA and SAS)
- Create framework and worked with different vendors on collateral negotiations
- Lead the efforts for implementation for Risk Analytics for Mortgage Products (VBA and SAS)

IBM- London, the U.K (Consulting Internship) Aug 2004 – Nov 2004

Corporate Strategy Associate Sept 2000 – July 2003

Convergys Corporation – Geneva Mar 1998 – Aug 2000

Senior Quantitative Analyst Mar 1998 – Aug 2000

Bell Labs Innovation - India & Japan Mar 1998 – Aug 2000

Quantitative Analyst Mar 1998 – Aug 2000

EDUCATION & TECHNOLOGY: R-STATISTICS, EXCEL, & SQL

Johnson - Cornell University-Ithaca, NY (Full-Time) - Masters of Business Administration in Corporate Governance.

Kingston University London (Full-Time) - Postgraduate Diploma International Finance and Econometrics Modelling.
University of Madras, Illege of Technology (Full-Time) - Bachelors in Electronics & Communication Engineering.

Namwoo Kim
New York, NY, USA
Phone: (201) 527-5878
Email: ommani201@gmail.com

EXPERIENCE

Morgan Stanley, New York & London

Mar 2014 – Present

Manager, Internal Audit

- Perform model validation and statistical testing for CCAR/DFAST model, Operational Risk model, Financial Advisor scoring model, Volcker RENTD model, and Anti-Money Laundering (AML) surveillance model
- Validate the processes and controls related to computation of the Model Risk Additional Valuation Adjustment (AVA) for Prudent Valuation purposes
- Provide the statistical and mathematical reviews in risk scoring methodology for risk assessment management action plan by validating the method and the procedures
- Articulate the scope and approach on model validation to the firm's senior management, regulators and Internal Audit management
- Review and validate the mathematical calculations built into the design of the model and the assumptions underlying the model development
- Provide thought leadership to the model validation team in shaping the firm's model methodology on models

Citigroup, New York

Jan 2005 – May 2011

Assistant Vice President, Risk Management

- Build operational risk models by fitting a parametric distribution to frequency/severity data and calculate operational VaR using Monte Carlo simulation by combining the optimal models
- Develop/recalibrate credit scorecards and fraud scoring model using logistic regression and perform model validation on a periodic basis
- Produce MIS reports to monitor credit/fraud distribution and to identify at-risk population for further reviews and suggest immediate remedial actions
- Perform portfolio risk analysis including data mining, analytical research and programming
- Design champion/challenger strategies for fraud detection management based on scorecards
- Conduct vintage analysis by channel to capture the pattern of customers' behavior
- Conceptualize projects based on internal client requirements and complete projects in collaboration with other teams

EDUCATION

- M.S. in Financial Statistics and Risk Management, Rutgers University, New Brunswick, NJ
- M.S. in Applied Mathematics and Statistics, State University of New York, Stony Brook, NY
- B.S. in Mathematics, Sogang University, Seoul, South Korea

COMPUTER SKILLS

SAS, S-PLUS (R), MS Excel/VBA, MS Access/SQL, JAVA, MS PowerPoint, MATLAB

HONORS AND AWARDS

- Outstanding Student Teacher Awards, State University of New York Aug 2001 & Aug 2004
- Teaching Assistant Scholarships in Doctoral program, SUNY Jan 2001- Dec 2004

Izzy Kuo

· 82-15 Britton Ave. Apt 2E, Elmhurst, New York, 11373 · (646) 387-5578 · yck241@nyu.edu

Education:

New York University, NY

Jan 2014

Master of Science, Financial Engineering, GPA: 3.80

Honor: Graduate Innovation Fellowship from NYU

National Tsinghua University, Taiwan

June 2011

Bachelor of Science, Industrial Engineering and Engineering Management (IEEM), Major GPA: 3.72

Dual Major: Quantitative Finance (QF), Major GPA: 3.97

Technical Skills:

Programming: SAS, MatLab, R, VBA, SQL, Hadoop, C, Python, Microsoft Office

Quantitative Risk Model Development and Validation (CCAR/Basel), Asset Management Model Validation, Portfolio Management, Simulation Techniques, Data Mining, Time Series analysis, Investment Strategies, Asset allocation

Experience:

AVP, Financial Engineer, State Street, NY

May 2015 – Present

- Validate asset management investment strategies (e.g. equity/FX trading strategies), academic publication based models (e.g. risk-managed dynamic allocation index) and securities finance models (e.g. dynamic margin model and revenue enhancement model)
- Develop and review quantitative models, including CCAR GSE (Government Sponsored Enterprise) prepayment rate, PD and LGD models and Municipal Bond PD model
- Develop liquidity model to capture balance and payment activity and estimate operational deposit based on the requirements specified in the LCR Rule
- Lead a four-person team, ensure quality of project deliverables and present research results to clients, CRO and CEO of State Street

Quantitative Consultant, Citi Bank, NY

Aug 2014 – May

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- Validated quantitative credit risk, market risk and operational risk models for CCAR stress testing
- Supported model design for prepayment, delinquency, PD and LGD models for foreign RMBS
- Conducted statistical tests to assess the conceptual/technical model soundness and model performance, such as goodness-of-fit tests, serial correlation tests and stationarity tests for AFS/HTM securities
- Validated and assisted developers for building PPNR loan balance model for consumer bank and private bank's loan products under stressed macroeconomic scenarios
- Built and performed the RWA calculator (SSFA and SFA) for all securitization exposure (Basel III)

Hedge Fund Quantitative Analyst Intern, Sentiment Alpha, NY

July 2013 – Aug 2014

- Led a six-person team in collecting and analyzing sentiment data and stock price data for all S&P500 component stocks
- Constructed a powerful algorithm that can predict stock price tendency with 70% accuracy rate by using machine learning techniques and statistical tools
- Initiated trading ideas and presented statistical arbitrage strategies to the portfolio manager

Private Equity Intern, Atlas Merchant Capital, NY

Apr 2013 – Dec 2013

- Built financial models for cost analysis and investment appraisal on a \$200 million acquisition
- Conducted capital budgeting decisions to assess the pro forma effects and potential returns on invested capital from a proposed acquisition

Academic Projects:

Algorithm Trading

- *Pairs trading (**Python**)*

Exploited market inefficiency by using pair strategy achieving 10.8% rate of return

Portfolio Constructing and Rebalancing

- *Optimal Portfolio Selection and Rebalancing Model in Financial Crisis (**Matlab, R**)*

Optimized portfolio with dynamic rebalancing strategy that resulted in 15% annual return during financial crisis

Risk Management and Machine Learning

- *VaR Revision by Neural Network with Economical Indices (**Matlab**)*

Improved the accuracy of VaR by constructing Neural Network with Industry Features and Economical Indices

Ling Li

Tel: (203) 685-4987 Fernandoleeling@gmail.com

EDUCATION:

Fairfield University	Fairfield, CT
Master of Mathematics	Jan 2010—May 2011
• GPA 3.92	
Master of Business Administration: Finance	Sep 2006-May 2008
• GPA 3.85	
• Awarded 2008 Honor Graduates	
• Awarded scholarship in MBA program	
Southwest Jiaotong University	Chengdu, China
Bachelor of Engineering: Electrical Engineering	Sep 2000-July 2004
• Won second and third class scholarships for academic performance	
• Won second class math modeling competition in college	

WORK EXPERIENCE:

UBS	New York, NY
CCAR Aggregation	June 2015 -- Now
• Manage CCAR aggregation process. Work closely with risk, treasury, capital and regulation teams for CCAR projections submission, review and funding actions. Produce FRY14A schedules, including balance sheet, income statement, PPNR, operations risk and capital etc with 9 quarter projections based on Fed and internal scenarios.	
• Designed and built sensitivity analytics module with excel VBA. Designed sensitivity analysis process. Perform sensitivity analysis to evaluate the capital ratio impact for incremental shocks on revenue, losses risk weighted assets, etc.	
• Built management review analytics tool to analyze revenue, expense trend, loss to balance ratio, profit to RWA ratios etc, which senior management uses for business decision making.	
• Work closely with IT for aggregation database design, training testing process.	
UBS	Stamford, CT
Fixed Income Middle Office	Sep 2013 – June 2015
• T+0 linear and nonlinear interest rate swap desk support: Reconcile daily PnL, portfolio valuation, bond, future positions for nonlinear, legacy muni, lightly structured, and exotic rates desks. Manage trades lifecycle events, such as trades novation, expiries exercise, early termination or amortization etc. Monitor live blotter and trades activities for any TV impact amendments.	
• T+1 Escalation point for rates middle office risk control process: Assist desk with any Markitwire and booking system technical inquiries. Resolve clearing related issues. Investigate breaks between booking settlement ledger and finance control leger; Resolve issues raise by settlements, confirmation, collateral or other teams.	
• Project management: Design test package for new reconciliation system and coordinate test among other functions. Implement regulation such as SEF trading, mandatory clearing, etc to middle office control process.	

UBS	Stamford, CT
Operations GTP 2011, OTC Derivatives Settlement Analyst	July 2011 – Sep 2013
• Perform cash settlement process including pre-confirmation and post value date account reconciliation. Calculate payment amounts and create payment advice for clients and assist client with any inquiries.	

Ling Li

Tel: (203) 685-4987 Fernandoleeling@gmail.com

- Risk control of the settlement process. Identify system errors front to back and solve the issue. Investigate breaks on the nostro, suspense or AVI account and clear breaks.
- Process improvement: analyze existing problems and redundant procedures. Make proposals to reduce the risk or increase efficiency of the settlement process.

UBS

Intern, Cash management group

Stamford, CT

March 2010—Aug 2010

- Initiate the Balance Optimization project
- Analyze root cause of large balance account and problematic transaction
- Reconcile discrepancies between cash position projection and statement

Morgan Stanley

Intern, Fund Administration

Westchester, NY

Jan 2008 – April 2009

- Issue month end financial statement to hedge fund investors
- Communicate with clients and perform daily portfolio reconciliation
- Tax withholding adjustment project for year-end audit

Fairfield University

Fairfield, CT

Sep 2006 – May 2008

Research Assistant, Finance department

- Assist Finance department chair doing research on foreign exchange and equity market
- Build financial model and write program for statistical analysis
- Research in corporate litigation risk and stock price volatility

Pitney Bowes

Stamford, CT

June 2007-Aug 2007

Summer Intern, Corporate Strategy

- Analyzed the financial statements of the acquired and target companies
- Analyzed the business trend according to mail volume in different markets
- Researched for potential customers in record management service

Skills:

- Front to back fixed income trading, valuation, settlement, payment and risk control experience.
- Solid financial products modeling ability and extensive knowledge in OTC derivative products.
- Strong Microsoft Excel and VBA programming skill.
- Basic SAS programming skill with SAS certificate.
- Proficiency in Markitwire usage, LCH and CME clearing service.
- Passed CFA Level one, pursuing for Level two.

SHI(AMANDA) LI, CFA, FRM

Address: 4310 Crescent Street, LIC, NY, 11101; Mobile: (773)964-2881; Email: amanda.li@uchicago.edu

Summary

4+ years of working experience in financial industry. Specialize in counterparty portfolio management and performance measurement. Work closely with traders in pricing trades and analyzing PnL. Sound knowledge in equity and fixed income products. Experienced user of Python, SQL and VBA with strong quantitative background. Strong academic background in mathematics and statistics.

Working Experience

Bank of America Merrill Lynch, One Bryant Park, New York, NY, USA

May 2016 – Present

Assistant Vice President, Quantitative Middle Office

- Calculating initial margin on OTC products based on the uncleared margin regulation and giving margin quotes to traders.
- Built the process for transfer pricing reporting for counterparty-portfolio-management traders. The process helps traders recognize the margin valuation adjustment for all OTC trades across the bank and reduce the potential initial margin charged.

Credit Suisse Securities(USA) LLC, One Madison Ave, New York, NY, USA

Oct 2013 – May 2016

Market Risk Reporting Analyst, Equities

- Building internal equity risk reports for traders and risk managers. The reports cover different business clusters for equity (including cash, prime services, systematic market making, derivatives), and cover risk sensitivities and risk profiles. Reports are Excel based, combined with R, VBA, SQL and internal time series system and scenario analysis system.
- Producing and distributing risk reports internally on daily and weekly basis. Monitoring the risks on different levels, from business cluster level to book and product level. Giving warnings of large usages of any flags or limits. Keeping track of block trades, unhedged positions and big bumps in VaRs.
- Building external risk reports for different legal entities (e.g. IHC, FINMA, PRA). Producing and distributing reports to regulators and internal audit.
- Sound knowledge in VaR calculation, in VaR methods involving parametric method, historical simulation method and Monte Carlo simulation method. Especially for historical simulation method, the use of linear simulation (2-step Taylor expansion) and non-linear simulation (partial revaluation).
- Practical knowledge in use of time series models (e.g. ARMA, ARCH, GARCH), in building stock return series, interest rate series and testing for seasonality.

Chicago Mercantile Exchange (CME), Clearing House, Chicago, IL

Jan. 2013 – Jun. 2013

Project Lab Intern, Margin Optimization

- Calculated theoretical client margin which is the sum of each position's 1-day 98% VaR in the client's account. This VaR is calculated using historical simulation method and is based on return series for the previous 2 years and the latest product prices.
- Split the positions in client account into two portfolios and calculated the VaR for each portfolio. Different position combinations are tested. To improve efficiency, standard deviation is used as an indicator. The combination with the least standard deviation is marked out and used as the optimal combination.
- To understand the influence of tail risk and extreme market condition, stress tests using data from year 2007-2009 were implemented.

Beijing RESSET Technology Co. Ltd., Beijing, China

Aug 2011 – Sept. 2012

Data and Research Analyst, Fixed Income

- Produced research reports for bond issues in China bond market for government sponsored enterprises, commercial banks and real estate companies. Reports include yield, risk, credit outlook, market liquidity estimation, future interest rate and inflation (CPI) expectation.

Education

The University of Chicago, Chicago, IL

Sep. 2012 – Jun. 2013

Master of Science, *Financial Mathematics*

Tsinghua University, Beijing, China

Aug. 2008 – Jul. 2012

Bachelor of Science, *Mathematics and Physics*

Programming Languages and Certificates

Python, SQL, VBA, R, MATLAB, C++

XINTONG LI

Email:xintong_marshall.li@gmail.com

New York, NY

Tel: 860-942-2931

SUMMARY

- Programming skills also include: SAS, SQL, VBA, R, Matlab, C#, Unix Shell, C++, and DOS Shell.
- Citi International CCAR/DFAST: EAD, PD.
- JP Morgan Chase CCAR: EAD, PD, LGD.
- Citi international portfolios of various countries.
- Chase mortgage portfolios (HELOC/HELOAN/PRIME/SUBPRIME/OPTION ARM).
- Good Excel Skills paired with VBA.
- Modeling, implementation, production, back-test, model performance tracking, reporting/documentation.
- Down-to-earth and results-driven team player with to-do attitude and big picture in mind.

Professional Certifications:

Passed the CFA level 1 exam/Actuarial exams (P, FM, MFE) (Currently pursuing CFA designation)

TECHNICAL SKILLS:

SAS/VBA/SQL/Unix Shell Scripting/Matlab/C#/R/C++/DOS Shell Scripting/LookAhead

Windows/Unix environment

MS Office (Word/Excel/Access/PowerPoint)/SQL Assistant/Hyperion DB2

Work/Project Experience:**Modeling/Scoring/Analysis Analyst**

Citigroup, Greater New York Area,

Feb 2015- Present

Build EAD (Exposure at Default) and PD (Probability of Default) models; Implement the EAD and PD models to produce GCL (Gross Credit Loss) and NCL (Net Credit Loss) for Citi's international credit card, PIL (Personal Installment Loan), and other products; Model maintenance and model documentation.

- PD and EAD model development.
- Model implementation and produce the year-end and mid-year loss forecast (GCL and NCL).
- Build and optimize process for data cleaning, data preparation, data quality check, back-test reporting, sensitivity analysis, and loss forecast reporting by using SAS, VBA, UNIX Shell Scripting, and in-database programming.
- Model maintenance: end-year and mid-year model production, model back-testing, model performance tracking, model sensitivity analysis, model documentation.
- Tools used include SAS, SQL, VBA, and UNIX Shell Scripting.
- Documentation for model implementation, model back-test.
- Interpret model results and root-cause analysis on the model loss forecast.
- Supported auditing efforts: held conference call and addressed the internal audit team.

Consultant

Cognizant Technology Solutions, Columbus OH

August 2013- February 2015

Consultant placed in JP Morgan Chase; all 3 projects are in CCAR; Exposed to model analytics, model development, and data warehousing.

1.Risk Architect Team (JP Morgan Chase)

November 2014-Febrary 2015

- Data warehouse transformation from DB2 to Teradata.
- Maintain the data warehouse by producing monthly data quality report.
- Performed data quality check on the data to be loaded to the data warehouse.
- Addressed user's tickets regarding data quality problem.

2. Modeling Team (JP Morgan Chase):

February 2014-November 2014

- PD/EAD models development. LGD model documentation.
- Constructed and selected candidate variables for EAD model.
- Reviewed and researched literature for industry EAD model best practice.
- Created variable transformation tool.
- Developed VBA application to automate model reporting: parameter estimate, VIF, correlation, bin/spline plotting (EAD, LGD, and PD).
- Built VBA and SAS automation for model performance monitoring and back-testing: odds ratio, mean, and some other summary statistics for module: development, validation, out-of-time, and back-testing sample, respectively. (EAD, LGD, PD).
- Provided model output parameters to implementation team and help them test the engines implementation.
- Created data pulling and model development documents.
- Ad-hoc program (SAS/UNIX SHELL SCRIPT) and report.

3. Analytics team (JP Morgan Chase):

August 2013-February 2014

- Summarized and interpreted model results.
- Developed SAS programs and modified existing SAS program to load data and to create report.
- Reporting using VBA/SAS.
- Ad-hoc reporting and analytics.

Various projects and independent study:

1. Maryland Department of Environment (Project)

August 2008- July 2009

I worked in the research team directed by my professor on the project for the Maryland Department of Environment.

The project was about estimating the deer population.

2. Market risk/Time Series /Derivative Pricing/VAR/CVAR/Risk Neutral

Ongoing

3. US trading/investing experience

since 2010

Stock/Options/ETF/Index

EDUCATION:

M.S in Applied Financial Mathematics, University of Connecticut, Storrs, CT

May 2012

B.S (Dual degree program) in Mathematics, Towson University, Towson, MD

May 2010

BS (Dual Degree program) in Finance Shanghai Finance University, Shanghai, China

May 2010

Interest: Investing/Trading/Outdoor/Hiking/Beach/gym/Chess/Poker

Yigong Lu

(917) 283-1253 • yl2944@columbia.edu

EXPERIENCE

Bank of America Corporation

Quantitative Finance Analyst (AVP), Model & Market Risk

New York, NY

December 2015-Present

- Covering model risk management for capital models (PD/EAD/LGD) and pricing models in Global Market
- Overseeing modeling practice by LOBs, providing feedbacks based on FRB & OCC guidance (SR-11, SR-12 etc.)
- Reviewed NII models for BSM, including M2 money supply and short-term finance C&I loans, to address MRAs
- Tested pool level prepayment and credit model for the MSR and MBS portfolios for valuation and NII forecast
- Evaluated MBS valuation models that computes OAS with market price of TBAs and modeled SMM
- Assessed BofA wholesale commercial scorecards that provide risk ratings to obligors of various LOBs
- Meeting with business partner executives regarding model risk assessment and timely regulation compliance

JPMorgan Chase & Co.

Modeler (Associate), Core Modeling

Wilmington, DE

October 2014 – December 2015

- Built credit models for the card portfolio on the CCAR modeling team, conducting loss forecasting and capital reserve
- Defined segmentation structure for 60 million credit card loans in the portfolio based on loan and customer attributes
- Modeled account migration across segments with transition matrix using macroeconomic variables as inputs
- Based on account transition, integrated the results with PPNR and generated GCL prediction through EAD and LGD
- Analyzed PD rate for accounts from different initial states and identified key drivers for delinquency
- Performed ad-hoc analysis on loan level data to evaluate the impact of internal policy change on account transition
- Received JPMC innovation award for building the Score Engine that integrates multi-layers of conditional probabilities simultaneously and cuts down the running time by 70 percent.

The University of Vermont Medical Center

Business Associate Intern

Burlington, VT

May 2014-October 2014

- Built predictive models that provided quantitative insights into enhancing the diabetes management program
- Met with MDs to identify the risk factors and indicators of health deterioration for diabetic patients
- Quantified the risk associated with diabetic patients hitting ER by building regression and survival models

SKILL SET & CERTIFICATES

Award: JPMC Innovation Award

Financial Modeling: Transition Matrix, Time Series, Regressions, Markov Chain, Stochastic Modeling, OAS, VaR

Actuary EXAMS: P, FM, MFE; **SAS Certified Advanced Programmer Credentials**

Tech Skills: Excel (VBA, Pivot Table), SAS (Macros & SQL), R, Putty, Teradata, Tableau, C++

EDUCATION

Columbia University

- M.S. in Actuarial Science

New York, NY

February 2014

Beijing Jiaotong University

- M.S. in Electronic & Electrical Engineering
- B.S. in Automation Engineering

Beijing, China

March 2012

June 2009

ACTIVITIES

Member, Humorous Toastmasters Club, New York, NY

November 2013- Present

- Delivered monthly personal speeches before 50 club members. Participated in impromptu table topics

Hobbies: Reading, Outdoors Hiking, Long Distant Running

Xiao (Tony) Luo

Model Validation Quant at Murex, CFA & FRM Candidate

Jersey City, NJ

chicagian@yahoo.com - 319-594-5500

Tony (Xiao) Luo is a Front Office Consultant (Model Validation Quant) at Murex, with Master's Degrees in Quantitative Finance and Urban and Regional Planning, and Bachelor's Degree in Environmental Sciences.

Career Interests:

Quantitative Strategist, Quantitative Researcher, Financial Technology.

Key Achievements:

Fordham University Merit-based Scholarship - GPA 4.0;
Team Leader at 2014 North America University Trading Challenge, 3rd Place in Risk Management Case Competition and Real-time Market Trading Competition;
Co-author of "Advanced Theory and Practice of Corporate Banking", the official Chinese textbook for CCB (Chartered Corporate Banker) professional certification;
Northwestern Polytechnical University First-class Scholarship (Four consecutive years) - GPA 3.8;
Northwestern Polytechnical University Excellent Volunteer Award;
Team Leader at College Mathematical Modeling Competition, Second-level Prize;
CFA Level III candidate & FRM Level II passed.

Willing to relocate: Anywhere

Authorized to work in the US for any employer

WORK EXPERIENCE

Consultant, Front Office Model Validation

Murex - New York, NY - February 2016 to Present

- Providing quantitative research support to investment banks (UBS, RBC, BNY, PNC, etc.) and hedge funds (INTL FCStone, Soros, Point72, Caxton Associates, Millennium, etc.) using MX.3, an asset pricing and risk management software platform
- Performing micro analysis of FX cash and derivative products and conducting quantitative model validation for FX asset pricing, portfolio simulation and risk analysis to ensure accurate and efficient numerical results
- Designing and developing native Accumulator strategies and EAKO (European-American Knock Out) structured products within pricing module to meet speculating and risk hedging needs of clients
- Performing P&L VaR and stress tests on ETF on FX futures portfolio simulation, and validating market values, P&Ls and Greek behaviors
- Conducting FX market data validation using financial data interpolation techniques, including rate curve bootstrapping method, rate curve interpolation formulas and FX volatility interpolation methods
- Writing and modifying programming code in MXML and UPL to improve software module functions, including portfolio simulation, exotic option payoff and pretrade rules
- Building and maintaining internal knowledge base on quantitative models for FX option products, including Black-Scholes formula, Call/Spread replication, Barone-Adsi Whaley formula, Vanna-Volga pricing model and Local-Stochastic volatility models
- Utilizing SQL and Unix to troubleshoot daily technical issues reported by clients and conducting technical mapping to tailor solutions to the clients' trading and pricing business

Trading Assistant (Contractor)

Morgan Stanley - New York, NY - October 2015 to January 2016

- Supported desk traders by conducting daily P&L and risk management modeling of fixed-income securities and interest rate derivative portfolios

EDUCATION**Master of Science in Quantitative Finance**

Graduate School of Business Administration, Fordham University - New York, NY
2012 to 2014

Master of Science in Urban and Regional Planning

University of Iowa - Iowa City, IA
2010 to 2012

Bachelor of Science in Environmental Sciences

Northwestern Polytechnical University - Xi'an, China
2006 to 2010

SKILLS

VBA (Proficient), C++ (Proficient), Python (Intermediate), SQL (Proficient), Matlab (Intermediate), Microsoft Word/Excel/PowerPoint (Proficient), Bloomberg Terminal (Intermediate)

LINKS

<http://www.linkedin.com/pub/xiao-luo/57/68b/515>

ADDITIONAL INFORMATION**Project Experience****"Bitcoin Quantitative Trading Strategies with 2-Year Investment Horizon"**

- Designed and optimized algorithmic trading strategies for Bitfinex BTC/USD and Kraken BTC/EUR
- Combined RSI, MFI and MACD technical indicators to implement trading strategy in Matlab
- Backtested trading strategies with 2-year return data and realized over 100% total returns

"10-year Asset Allocation Optimization for Pension Fund Investment"

- Developed optimal asset allocation strategy for a five-asset-class pension fund portfolio
- Backtested the portfolio against benchmark indices over a 10-year investment horizon using VBA
- Conducted 10-year stress testing with t-copula Monte Carlo simulations and 99% monthly return VaRs
- Achieved total return and maximum drawback that surpassed the client's risk and return objectives

"Risk Management Solution for Oromondo Exploration Corp."

- Designed 5-year derivative risk hedging system for the hypothesized mining company in Excel
- Assessed effectiveness of the system by conducting 3-year gold price scenario analysis using VBA
- Realized average net earnings 20% higher than the no-hedge strategy

"S & P 500 Index Algorithmic Trading Implementation"

- Implemented k-Nearest Neighbors trading algorithm on daily trading data of S & P 500 using C++
- Backtested the trading strategy with risk-adjusted returns 15% higher than simple index tracking

YUQIAN SHI
(857) 707-6260

2138 BPO Way, Piscataway, NJ, 08854

shiyqfd@hotmail.com

SUMMARY AND OBJECTIVE

Possesses outstanding mathematical, data analysis and programming skills which have been refined during my entry-level banking position. Excellent training in risk management and problem solving abilities. Works well in a team environment.

EDUCATION

Rutgers University, New Brunswick, NJ, USA

Master of Science, Financial Statistics & Risk Management

2015 – 2017

Fudan University, Yangpu district, Shanghai, China

Bachelor of Science, Mathematics, Information and Computing Science branch

2010 – 2014

PROFESSIONAL EXPERIENCE

Valley National Bank

Junior Model Validation Analyst

Present

- Validated the pricing, prepayment speed assumption and process of impairment and amortization of Mortgage Service Rights
- Performed analysis support to the Auto-Lending loss opportunity from the perspective of location, customer's grades, and the spreads between offered interest rates and decision rates
- Perform the annual Dodd-Frank Act Stress Test (DFAST) to evaluate the potential impact of stressed economic and financial conditions based on hypothetical scenarios, which includes the Baseline, Adverse and Severely Adverse scenarios

Community Informatics Inc.

Data Analyst Internship

2016

- Extracted New Jersey's municipal budget data from pdf files and used R regular expression functions to clean the data
- Constructed score functions including 6 indicators to measure fiscal conditions and gave ranking to each municipality
- Implemented different data mining methods for municipal bonds classification, including Logistic Regression, Random Forest and Support Vector Machine (SVM), to help give ranking to each municipality's fiscal condition

Citi Bank (Beijing Branch)

Summer Internship

2014

- Promoted Citi's portfolio management services and products to customers at different branches
- Worked with a team and developed a project to expand Citi's business

RESEARCH PROJECTS

Applying Penalized Regression Approaches to Replicating the Performance of a Hedge Fund Index

2015

- Explored the feasibility of using a multi-factor model of liquid asset indices to replicate hedge fund returns
- Used two different penalized regression methods, LASSO and RIDGE regression, to simultaneously select variables from a large pool of equity, bond, volatility and commodity Indices and to estimate their coefficients for a model developed to replicate the returns of the HFRI Equity Hedge Total Return Index

Testing the Implementation of Binomial Tree Methods to Option Pricing

2015

- Used historical data and R programming to calculate the prices of S&P 500 options using the Binomial Tree Method
- Found, that as the number of time steps increases, the price calculated using the binomial tree method converges to a value slightly different than the market price, reflecting differences between the limiting Binomial Tree model assumptions and market price behavior

The Application of Darboux Transformation in an Integrable System

2014

- Transformed a Schrödinger equation into its Lax Pair and applied the Darboux transformation
- Verified the existence of Rouge Wave solutions and visualized them using MAPLE

An Account Management System Using C++

2013

- Used an inheritance structure to construct classes including 'Account', 'Bank Account' and 'Stock Account'
- Used a double linked list structure to store the portfolio stock information and realized buying and selling operations of stocks
- Embedded MATLAB interface to display the variation in the value of the portfolio as transections occur over a period of time

TECHNICAL AND OTHER SKILLS

Core Domain Expertise: Mathematical Analysis, Numerical Method, Data Analysis, Statistical Modeling, Monte Carlo Simulation

Computing and Programming: R, C++, Matlab, Maple, Microsoft Office (Excel, Word), Latex

Communication: Mandarin (Native), English (Fluent), good listening and problem solving skills

Sports: basketball, Martial Arts: WingChun (5 years)

Workplace and Teaming: skilled in teamwork, collaborative, and supportive

HONORS AND ACTIVITIES

- Bloomberg Market Concepts Certificate 2015
- International Volunteer for the Nepal Earthquake Relief Program 2015
- Fudan University Scholarship 2014
- Club coach: Fudan Shao-Long Kung Fu Club 2014

Yu (Maggie) Song

New York, NY 10282

919-623-4261
yusongduke@gmail.com

PROFESSIONAL EXPERIENCE

Goldman Sachs

10/2015 - present

Vice President

- Assessing and quantifying model risk used in the firm through its range of businesses – trading and investment, asset management, capital computations, and risk management;
- Focusing on developing alternative business models to quantify the sensitivity to the choice of different models, verifying model implementation for business valuation and risk managing, and documenting;
- Validating pricing models and market risk models (VAR), liquidity and funding related models (such as funding cost of the firm's or GS Bank's issued debt)
- Conducting model validation for regulatory requirements including CCAR and DFAST.

Constellation Energy - Exelon

08/2014 – 09/2015

Senior Quantitative Analyst

- Working in commercial analytics (pricing) group to develop, enhance and implement derivatives pricing hybrid models to support origination, deal flow, commodity trading, and portfolio management;
- Identifying and evaluating risk factors, developing and executing quantitative approaches for pricing and risk analysis of energy commodity transactions;
- Calibrating, back-casting, and validating models using time series analysis and stochastic numerical and simulation methods;

EDUCATION

Duke University, Durham, NC

07/2014

Ph.D. in Physics

- Relevant Courses: Stochastic Calculus, Nonlinear Dynamics, Mathematical Methods in Physics, Modern Statistical Data Analysis, Statistical Inference, Linear Model, Probability/Stat Models, Random Signals and Noise

University of Science and Technology of China (USTC), China

06/2008

B.Sc. in Physics

- Relevant Courses: Linear Algebra, C Programming, Data Structure and Database, Computational Methods, Probability Theory and Mathematical Statistics

SKILLS

- Passed **CFA Level I** Exam(Charlotte, NC, 2011)
- Matlab, R, C/C++, SecDB/Slang, Excel, Mathematica, CVS
- Time Series Analysis, Statistics, big data handling
- Numerical Methods: Monte Carlo, PDE, Linear Algebra

SELECTED HONORS AND AWARDS

- Outstanding Student Scholarship of USTC, 2004-2007 (3 consecutive years)
- USTC Overseas Alumni Foundation Outstanding Student Scholarship, 2004

Yirui Tai

42-54 Judge Street,
New York, 11373

612-876-1645
terrytai2016@gmail.com

EXPERIENCE

Numerix LLC

Financial Validation Engineer

New York, NY

Sep 2013-Present

- **Derivatives Pricing:** Structure derivative trades and valuation framework for performing independent price verification and risk analytics task by using Numerix CrossAsset pricing library, like manual calculation checking and benchmarking against other vendors in markets like Bloomberg. Asset class including equity and rates products valuation like, such as Bond, OIS, Interest Rate Swap, Basis Swap, CrossCurrency Basis Swap, Cap, Floor and Swaption, Forward, European, American, Barrier option, Digital option and Variance Swap, Credit Default Swap, CDS option etc. Perform financial validation of yield curve bootstrapping and caplet stripping.
- **Model Validation:** Work with quant developers and financial engineers for performing quantitative testing on the defect and new feature of Numerix equity and rates derivative pricing models and challenge model developers to make sure test results meet developers' requirement, models such as Black model, SABR model and short rate models etc.
- **Market Risk:** Conduct market risk analysis on derivatives and portfolios, including Greeks Calculation (Delta, Gamma, Vega, Theta, Vanna, Volga, DV01, Duration, Convexity) and VaR methodology.
- **Client Support:** Work with support team to provide clients high-quality solutions in an efficient manner. Assist customers build trade examples and do manual calculation benchmarking to show the clients that Numerix models and methods are implemented in the desirable way. Cooperate with business analyst and quant research teams to analyze and determine likely problem areas

Numerix Training

- **Counterparty Credit Risk:** Good understanding counterparty risk knowledge, EE, PFE, CVA/DVA valuation, margin, collateral, netting, right way and wrong way risk.
- **Derivative Structuring:** Good understanding knowledge of structured products like capital protection, yield enhancement, participation and leverage products. Review client's term-sheet and assist them correct their complex structured products work book like autocallable note, range accruals and barrier reverse convertible etc.

Independent Trading and Research

09/14-Present

- Manage personal account portfolio and actively trade short and long term swing trading single stocks, ETF, energy ETF, E-mini futures and options based on technical and fundamental analysis.
- Actively bet directional and volatility trading and deeply research option trading strategy including Covered Call, Ratio Spread, Risk Reversal, Vertical Spread, Calendar Spread, Straddle, Strangle, Iron Butterfly and Iron Condor option combination trading strategies etc.
- Analyze the Delta, Gamma, Vega and Theta to rebalance portfolios to achieve the desired exposure.

EDUCATION

Georgia Institute of Technology

Master of Quantitative and Computational Finance

GRE Quant 800/800

Atlanta, GA

08/11-12/12

Coursework: Fixed Income, Derivative Securities, Option Pricing, Investment, Risk Management, Stochastic Calculus, Financial Optimization, Numerical Finance, Financial Data analysis

University of Minnesota-Twin cities

Bachelor of Science in Mathematics

Bachelor of Science in Economics

Minneapolis, MN

08/08-05/11

ADDITIONAL INFORMATION

- **Languages:** English (fluent), Mandarin Chinese (native)
- **Computer Skills:** C++, Excel VBA, Python, SQL, Bloomberg, Numerix

Wen (Qinwen) Tian, CFA, FRM

Tel: (917) 834-0874 Email: tian.qinwen@gmail.com

EXPERIENCE:	The Boston Consulting Group Senior Consultant, Platinion Risk Practice	New York, NY
01/2017-Present	<ul style="list-style-type: none">Advised senior director of an European Investment banking in reviewing and validating the IHC CCAR models. Covered the model overlay processing process, Balance Sheet and PPNR projections.	
08/2012-12/2016	Pricewaterhouse Coopers Advisory Senior Associate, Financial Services Consulting – Banking and Capital Market	New York, NY
	<ul style="list-style-type: none">Developed Pre-Provision Net Revenue (PPNR) models for a Bulge Bracket investment banking client; Led the model development process for Corporate FP&A, Equity and IBD Corporate Strategy teams; Worked directly with Strategy Teams and Product COOs to present the PPNR models for Business Head Tollgate Sign-off and CFO Review & Challenge.Advised a leading global investment bank client in developing PPNR modeling frameworks; directly supported business senior management team in developing model overlay analysis.Worked with a Sr. Director (C-Suite level) client from a top bank holding company to set up the CCAR credit loss stress testing model validation and review framework. Alao assisted in managing the client's CCAR model functional review and challenges.Assessed the model conceptual soundness and model frameworks for clients' models (derivatives valuation models and Stress testing model); Interviewed with clients and analyzed the model implementation; Drafted model validation testing plans and reports.Performed valuation of vanilla and exotic derivatives transactions for top global investment bank clients, hedge funds, and other institutions; Products include Interest Rate Swaps, FX swaps and options, Equity Products (Asian Rainbows, Quanto Baskets), etc..Developed simulation based equity derivatives/structured products pricing tools using Matlab and Fincad; drafted the internal pricing guidance for complex derivatives.Led the PwC internal interest rate curves striping and building projects with Numerix.	
05/2011-08/2011	MSCI Inc. Risk Analytics QA Summer Associate, RiskMetrics Group	Beijing, China
	<ul style="list-style-type: none">Advised on more than 30 client cases related to Market Risk measure, Risk Drilldown, VaR etc.; Gained high evaluation from both internal and external clients.Developed pricing validation tools for inflation-linked bonds, commodity futures spread options.	
EDUCATION:	Georgia Institute of Technology	Atlanta, GA
08/2010-12/2011	M.S., Quantitative and Computational Finance	
	<ul style="list-style-type: none">Representative Equity Research Analyst for Academic Global Investment Research Competition, CFAGraduate Teaching Assistant: <i>Risk Management in Financial Institutions</i>, MBA/QCF courseGraduate Research Assistant: <i>Portfolio Performance Analysis</i>, graduate project	
09/2006-07/2010	Central University of Finance and Economics B.S., Mathematical Economics and Mathematical Finance	Beijing, China
ADDITIONAL:	<ul style="list-style-type: none">Programming Skills: MATLAB, RFinancial Application Experience: Bloomberg, Thomson Eikon, RiskMetrics, FinCadCertificate: CFA, FRM	

Chen Wang, FRM

25 Ave at Port Imperial APT 1005 • West New York, NJ 07093 • chenwang8898@gmail.com • 213-265-6389

WORK EXPERIENCE

BNP Paribas

Independent Risk Control, Model Validation Associate

New York, NY
01/2016 - Present

- Validated Market RWA (VaR & sVaR) model (volatility adjusted parametric approach), Credit and Counterparty RWA models (standardized approach)
- Validated liquidity stress test, cash flow forecasting, and resolution plan models covering broker-dealer and corporate banking business

Bank of the West

Treasury ALM, AVP, Quantitative ALM Analyst

San Ramon, CA
01/2014 - 12/2015

- Developed and maintained models under DFAST/CCAR framework
- Helped to monitor key ALM metrics such as repricing gap, liquidity gap, NII and EVE
- Created regression models for deposits/loans growth and Monte Carlo simulation for stress testing
- Built prepayment models for various retail and commercial products using non-parametric model, logistic model and hazard model
- Developed off-balance sheet models for LCR/CMLTR and liquidity stress testing

T3 Trading Group, LLC

Los Angeles, CA

Trading floor, Quantitative Developer

06/2012 - 12/2013

- Constructed an indicator reflecting buy and sell strength on a stock or portfolio level, which showed a reasonable predictive power for short-term price move
- Developed a reversal strategy with dynamic risk management features to catch potential big spread when front orders get swiped, which generated stable profits on large cap stocks
- Developed a strategy that takes advantage of the market behavior during the last minute before market close, which has a smooth equity curve with significant gains on high volume day

New China Asset Management Co., Ltd.

Beijing, China

Fund Investment Department, Investment Manager Assistant

07/2010 - 09/2010

- Analyzed fund performance persistence, fund manager's stock picking and market timing ability using Fama-French model, which identified two funds in the best performing funds of that quarter
- Combined momentum life cycle and style rotation theory to construct a portfolio consisted of momentum and contrarian stocks, while keeping the portfolio beta to be market neutral

EDUCATION

University of Southern California

Los Angeles, CA

- Master of Science in Financial Engineering, GPA: 3.9/4.0
- Teaching Assistant for the course "Investment Analysis and Portfolio Management" 2012 Fall

East China University of Science and Technology (ECUST)

Shanghai, China

- Bachelor of Science in Economics, Major GPA: 3.8/4.0
- ECUST First-Class Scholarship (Top 3%)
- Third Prize of China Undergraduate Mathematical Contest in Modeling (Shanghai Division) 2009

RESEARCH

Working Paper

04/2013 - 12/2013

Empirical linkages between stock returns and trading volume

- Investigated the linkages between Chinese stock market returns and trading volume under different market fluctuations based on Markov switching autoregressive model and Granger causality test

Thesis

02/2011 - 06/2011

Spillover effects between Chinese foreign exchange market and stock market under bull and bear market

- Using GJR-GARCH to discover and specify asymmetric volatility spillover effects between foreign exchange and stock markets, and provided risk management guideline for investing in two markets

SKILLS

CFA Level 3 Passed, C++, R, VBA, SQL, QRM (basic), Matlab, SPSS, EViews, acoustic guitar

Zijian (Jason) Xie
401 Washington Blvd M2 #2302, Jersey City, NJ 07310
(917) – 982 – 3631 zx2177@columbia.edu

EDUCATION

Columbia University , School of Engineering and Applied Science <i>Master of Science in Operations Research (Financial Engineering Concentration)</i>	New York, NY Dec. 2016
• Relevant courses: Quantitative Risk Management, Financial Engineering, Stochastic Models, Simulation, Data Structure & Algorithms, Computational Methods in Derivatives Pricing, Data Mining, Regression and Time Series Analysis	

University of International Business and Economics <i>Honors Bachelor of Economics, Actuarial Science</i>	Beijing, China Jul. 2014
• GPA 3.9/4.0, Rank 2/119 with National Scholarship for Academic Performance for 4 years (1%) • Top 10 Outstanding Students of Year 2013 with Taihao Scholarship (0.1%)	

SELECTED EXPERIENCE

DV Trading, LLC <i>Research Intern</i>	New York, NY Nov. 2016 – Dec. 2016
• Written C++ and Python programs to simulate VaR in two different ways: portfolios price simulation and Delta-Gamma Monte Carlo simulation, applied importance sampling to reduce variance. • Simulated 95% and 99% VaR separately Equities, FX and Futures portfolios according to historical data.	

Morgan Stanley <i>Quantitative Finance Summer Student Camp Trainee</i>	Shanghai, China Jun. 2015 – Aug. 2015
• Contrived A-H shares pair trading strategies in R, used cointegration test and OLS method to estimate hedge ratio, and applied O-U process and ARMA-GARCH model to describe the volatility of spread. • Designed momentum strategy in C++, used spread signals between 5-day and 30-day SMA, set stop-loss limit at 5%, received 17.0% annual return rate, 2.6% maximum drawdown and 1.2 sharp ratio. • Constructed multi-factor models strategy to select equities in China A share market, rating equities by different factors and short stock index futures, received 15.2% annual return rate and 0.8 sharp ratio.	

WR Asset Management Company <i>Quant Trading Intern</i>	Shanghai, China Sept. 2014 – Apr. 2015
• Devised the momentum and reversal effect method in stocks selection strategies, achieved 42% 2-month return rate. • Maintained trading platform parameters daily and assisted traders in writing C++ and MATLAB to test trading strategies. • Assisted in checking investment contractors with risk and compliance department, and communicated with company customers weekly for product update.	

SELECTED PROJECT

Data Structure and Algorithm Course Project (C++) <i>Tsinghua University Online Course</i>	Jul. 2016 – Nov. 2016
• Designed data structures for Least Recently Used (LRU) cache, Least Frequency Used (LFU) cache in C++ via Map, Double Linked List and Linked Hash Set, realized all operations in O(1) time complexity. • Designed data structure for Implement Trie (Prefix Tree) and used it to realize words add and search data structure. • Designed data structure for Heap (Priority Queue) and used it to realize finding median from data stream.	

Quantitative Risk Management (R and MATLAB) <i>Columbia University</i>	New York, NY Jan. 2016 – May 2016
• Applied Principal Component Analysis to US Risk free rate (weekly) during 2007 – 2009, and estimated VaR and ES at 95% and 99% by historical Monte Carlo simulation and PCA analysis result. • Used Monte Carlo simulation to price the basket option by assuming risk-neutral dependency structure in Gaussian copula and multivariate t copula, used importance sampling for variance reduction. • Simulated multiple paths of the delta-hedging of a long position in a European option in the Black-Scholes model, analyzed the P&L under different assumption of the implied volatility.	

NYC Manhattan Real Estate Sales Price Analysis (R and Python) <i>Columbia University</i>	New York, NY Jan. 2016 – May 2016
• Collected real estate data from NYU Furman Center, NYC Open Data, NYC Police Department and Zillow API, and cleaned data into 4534 rows and 39 columns, and choose 23 numeric variables. • Implemented Lasso Regression, Ridge Regression in training and test data. Chosen Lasso Regression which shrunk the number of factors to 12 and minimized the MSE of the model.	

SKILLS AND INTEREST

Certification: F/FM/MFE Exams and VEE Approved Courses of Society of Actuaries
Computer: C++, Excel, MATLAB, R, Python, MySQL
Language: Mandarin
Interests: Violin (10 years), Fitness, Badminton, Swimming, Music

CLAIRE BOYUAN XUE

30 River Ct. Apt 803, Jersey City, NJ 07310
b.xue@columbia.edu | (917) 573-4666

EDUCATION

Columbia University, The Fu Foundation School of Engineering & Applied Science <i>Master of Science in Financial Engineering</i>	New York, NY 9/2015-12/2016
● GPA: 3.8/4.0 ● Courses: Data Analysis, Monte Carlo Simulation, Stochastic Models, Optimization, Applications Programming	
Peking University, Guanghua School of Management <i>Bachelor of Finance</i>	Beijing, China 9/2011-7/2015
● Major GPA: 3.8/4.0, Rank: top 5% ● Courses: Stochastic Calculus, Probability and Statistics, Security Investments, Corporate Finance, Financial Markets ● Awards: National Scholarship (0.5%), Excellent Student of Peking University (5%), POSCO Scholarship (2.5%)	
University of Pennsylvania, The Wharton School <i>Exchange Student</i>	Philadelphia, PA 1/2014-5/2014
● GPA: 3.8/4.0, Courses: Fixed Income Securities, Financial Derivatives, Intermediate Accounting, Risk Management	

PROJECTS & ACTIVITIES

Project: Pricing Fixed Income Securities	5/2014
● Estimated Vasicek model and tested Expectations Hypothesis with binomial tree and Monte Carlo simulation ● Priced mortgages, CDS and calculated option-adjusted spread using binomial tree	
Student Union, Director of Public Relations	Beijing, 9/2012-9/2013
● Raised a total funding of RMB 70,000 for all student activities from 2012 to 2013 in Guanghua School of Management	
Rotman International Trading Competition (RITC)	Toronto, Canada, 2/2015
● Won the first place in Sales and Trading (other cases including Equity Valuation, Quantitative Outcry, Commodities, Options)	

EXPERIENCE

Citi <i>Summer Analyst, Global Markets and Quantitative Analysis</i>	Hong Kong 6/2016-8/2016
G10 Rates Structuring & Multi Asset Structuring	
● Prepared back-testing and pricing for 4 mutual fund linked products (including one largest single fund linked trade in APAC) ● Structured product pricing: Priced callable swaps, swaptions, index linked notes and other structured products; built VBA automations for structured product pricers; ● Researched on equity dynamic hedging strategies; ● Project: JGB Repack Note , utilized short and long term USD-JPY cross currency basis, and achieved a net Yen yield enhancement of 0.7% p.a. Project includes client identification, product setup, pricing, and marketing	

KKR-Yanchang Global Energy Fund L.P. <i>Intern</i>	Beijing, China 3/2015-6/2015
● Built detailed Free Cash Flow valuation models for target oil and gas companies, including general assumptions, key financial assumptions and cash flow schedules; analyzed investment merits and considerations ● Conducted study of 7 potential targets in North America, including performance overview and production schedule; followed the global oil and gas market and wrote reports for management	

UBS Securities Co. <i>Summer Analyst, Corporate Client Solutions (IBD & GCM)</i>	Beijing, China 6/2014-9/2014
● Facilitated a 2 Billion RMB Capital Debt issuance for a commercial bank: assisted due diligence, independently finished prospectus and issuance announcement, prepared application documents for CBRC ● Participated in 4 M&A deals (including 3 cross-borders), 1 included IPO at NYSE. Cooperated with overseas teams for pitch books and internal reviews, analyzed target companies and wrote proposals and execution report for clients ● Joined 5 execution and 2 pitch projects including private offerings, preferred shares and convertible debts	

SKILLS & INTERESTS

- Programming: Python, VBA for Excel, C++; Software: MATLAB, SAS; Bloomberg, Capital IQ
- Passed CFA Level I
- Hobbies: Travelling; Tennis; Photography; Piano; Cooking

LINGFEI (PHYLLIS) YANG, FRM

ADDRESS: 260 W 54TH ST, APT 47G, NEW YORK, NY, 10019 • PHONE: 734-612-8876 • E-MAIL: LINGFEI.YANG.2014@GMAIL.COM

EDUCATION

UCLA ANDERSON SCHOOL OF MANAGEMENT

Master of Financial Engineering

Los Angeles, CA
Dec 2014

- Applied Finance Project with Citi - Fixed Income Research Team: **Strategy Studies on Emerging Market Corporate Bond Index** (Advisor: Francis Longstaff): Involved cut-and-rotate strategy that depends on Citi's internal probability default (PD) model and credit regression models in Matlab for emerging market corporate bonds; Research application result was published internally and externally.

UNIVERSITY OF ILLINOIS – URBANA CHAMPAIGN

Masters of Science, Finance

Champaign, IL
Aug 2013

- Teaching Assistant for FIN 511 Investments to EMBA students for Professor Mao Ye (Apr 2013 – May 2013)

SHANGHAI UNIVERSITY OF FINANCE AND ECONOMICS (Sufe)

Bachelors of Economics, Economics (Minor: Accounting)

Shanghai, China
Jun 2008

- Scholarship, 2005 and 2008; Liaison Department Leader, Economics Association, Sep 2005 – Jun 2006
- Champion (1/12 teams), JA Management and Economics Simulation Competition, SUFE, 2007

PROJECTS

- Risk Management: PCA on foreign exchange to identify risk factors in R; Volatility modelling such as GARCH and EVT in R; Value-at-Risk (VaR) measurement under Monte Carlo simulation, historical method and delta-normal method.
- Credit: MBS pricing under Numerix prepayment method in Matlab; Merton-KMV approach to modelling default risk.

EXPERIENCE

HSBC

Senior Analyst, Independent Model Review (IMR)

New York, NY
Aug 2015 – now

- Review Basel and CCAR models (PPNR, PD) on credit risk wholesale portfolios across business units (CMB, GBM, GPB) by identifying limitations of model design and performance; document review findings (6 reports completed) and communicate with stakeholders;
- Conduct backtesting analysis, cross validation analysis, benchmarking, stress testing for forecasts in time series regression (12 PPNR C&I balance models) to justify model conceptual soundness in assumption, model specification and model performance;
- Implement data quality check (i.e., default, collateral data) in SAS to identify data issues to be enhanced at the pre-development stage for commercial LGD model;
- Collaborate with global IMR team on global model reviews including a PD model with exposure more than a hundred billion in USD;
- Streamlined and automated weekly/monthly project tracker, and enhanced the efficiency of the project management for the team by ~25%;
- Achieved top performer (top 10%) in FY 2016 and gained acknowledgement from managers due to assistance in resolving MRA findings.

Numerix

Quantitative Support

Intern, Quantitative Support

New York, NY
May 2015 – Aug 2015

Jun 2014 – Sep 2014

- Assisted clients in resolving various issues in the realm of pricing and risk valuation across distinct asset classes entailing interest rate, credit and equity;
- Handled 1 case per day on average, for example, variance swap replication, interest rate swap payment script designing, CDS Index option pricing construction, and make whole call option pricing.

Pacific Life

Intern, Risk Applications, Risk Management

Newport Beach, CA

Mar 2015 – Apr 2015

- Extended features of comparison tool for hedging model against benchmark model by using VBA and SQL, enhanced the flexibility of the template, and saved time for each testing;
- Performed peer review on Performance Attribution tool in VBA/C# for theta estimation on liability side to control model risk and documented the tool design and process.

UBS INVESTMENT BANK OFFSHORE - ISOFTSTONE

Shanghai, China

Middle Office Equity Derivatives Analyst, Exotic and Structured Derivatives Group

Aug 2010 - Apr 2012

- Reviewed newly traded vanilla and exotic equity derivative EMEA deals (KI-Goal, ELN, etc.) to find discrepancies;
- Performed more than 800 deal reviews (top 3 within team) through Monte Carlo simulations to implement model checks in order to ensure that risk bookings accurately reflect the legal documentation of each trade;
- Liaised with front office and established a favorable relationship with UBS London onshore team;
- Automated corporate actions notification to enhance the efficiency by about 10%, and coached four new employees in trade life cycle.

ADDITIONAL

- CFA Level III candidate; Certified FRM (2015); Passed CAIA Level I
- Experience using Bloomberg, Numerix, CRSP, Compustat, Datastream, Morningstar, and Capital IQ
- Proficient in Matlab, R, SAS, VBA, SQL, Access
- Best New Hire Award, Accenture, 2008; Recognition for high performance five times as top 10% employee at Accenture (2008 – 2010)

Long Ye, FRM

long.ye@uchicago.edu | (929)278-6988 | 4310 crescent st, Long Island City, NY, 11101

Experience

Pinnacle Asset Management, New York, NY (Associate at Research & Due Diligence) Apr. 2016 - current
Fund of Hedge Funds in Commodities with AUM \$2.6B

- Assisted chief investment officer with supervising daily positions, P&L and risk sensitivities of portfolios; reviewed, estimated and commented daily performance of invested managers; reconciled P&L of hedge fund managers; documented and analyzed leverage of our portfolio exposures with attributions and performance
- Summarized news and material events; went over agreements with invested hedge funds to review strategies, trading details and quant stats
- Led project of selecting hedge fund managers into our current portfolio by stochastic dominance

Credit Suisse, New York, NY (Risk Analyst at Strategic Risk Management) Jan. 2014-Mar. 2016

- Calculated daily risk based P&L of portfolios in equities, bonds, loans and credit default swaps; identified key sensitivities drivers (CS01, prices and positions); reported P&L basis with commentary and market news
- Solved requests from traders, made stressed scenario tests and ad-hoc analysis for instruments hedging during new business/transactions/rule approvals; built reports covering regulatory requests for legal entity and risk management purposes (VaR, stressed VaR, regulatory VaR, ERC, IRC); acknowledged responsive VaR calculation method for all products
- Maintained position and risk type identifications from feeds in risk system database; signed off and approved daily data, validated positions with correct credit ratings and exposures, identified detailed trading information and kept improvements of reporting as BAU responsibility

Deloitte LLP, Chicago, IL (Analyst at Risk Management) Mar. 2013- Nov. 2013

- Reconciled equities, options and futures data for calculation of historical P&L, risk exposures VaR and CVar; employed stochastic simulation and numerical models for P&L and risk exposure calculation; prepared sensitivity analysis, stressed scenario performing and portfolio components analysis of equities and derivatives with controlled loss distributions
- Validated the accuracy of models and applied different statistical methodologies through back-testing; identified standard error and recommended valuation model changes to improve the accuracy of return projections through tested distributions and risk measures

Founder Securities, Shanghai, China (Analyst at Investment Department) May 2012-Sept. 2012

- Assisted traders in supporting, analyzing and developing trading strategies (correlation trading) in oil futures trading through statistical and numerical methods by Matlab, with increased profits over 60%; collected data of marking-to-market positions and prices for daily P&L clearing for traders
- Wrote weekly sectional equity research with strategies from fundamental and technical analysis and presented to managers and clients in weekly meetings

Citibank Co.Ltd., Shanghai, China (Analyst at Summer Intern Program) June 2011-Aug. 2011

- Supervised client accounts over \$25,000,000 for investment advisory of maximization of investment portfolio returns over 15% annually within given risk tolerance and reallocation of investment structures; demonstrated scenario risk analysis within framework to clients

Industrial Bank Co., Ltd., Shanghai, China (Analyst at Loan Risk Management) Oct. 2008-Aug. 2010

- Participated in the loan lending for Sinopharm Co., Ltd for over \$2,000,000 and credit line extension for China Railway Materials Shanghai Company about \$33,000,000 from documentations, agreements, financial statements, negotiations and business on site events

Education

University of Chicago, Chicago, IL Aug. 2012-Jun. 2013

Master of Science in Financial Mathematics, GPA: 3.52 /4.00

New York University, New York, NY Sep. 2010-May 2012

Master of Science in Financial Engineering, GPA: 3.5 /4.0 with Graduate Student Scholarship

Shanghai Normal University, Shanghai, China Sep. 2006-Jun. 2010

Bachelor of Science in Information and Computing Science, GPA: 3.82 /4.00

- Rank: 1st out of 183 students, Student Leader of Dean of Students Affairs Committee

- Computer Skills: C++, MATLAB, R, VBA, C#, SQL, Bloomberg, MS Office

CHEN ZENG

425 Washington Blvd. Apt 1212 Jersey City, NJ 07310
(404) 369-6839 ♦ chenzeng715@gmail.com

SUMMARY

Highly self-motivated, detail oriented and a team player. Looking for a position in the financial risk management and quantitative research / modelling areas.

EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY – Atlanta, GA	August 2010 – May 2013
<i>Master of Quantitative and Computational Finance</i> (GPA: 4.0/4.0)	January 2012 – May 2013
Relevant Coursework: Stochastic Processes in Finance I & II, Numerical Methods in Finance, Financial Data Analysis, Time Series Analysis, C++ Design and Implementation, Fixed Income Securities, Derivative Securities, Finance and Investment, Management of Financial Institutions, Financial and Managerial Accounting, Option Trading and Technical Analysis	
<i>Master of Science in Mathematics</i> (GPA: 4.0/4.0)	August 2010 – December 2011
Relevant Coursework: Probability Theory, Partial Differential Equations, Multivariate Statistical Analysis, Numerical Approximation, Numerical Methods for Partial Differential Equations, Iterative Methods for Systems of Equations	
EAST CHINA NORMAL UNIVERSITY – Shanghai, China	September 2006 – June 2010
<i>Bachelor of Science, Major in Mathematics and Applied Mathematics</i> (GPA: 3.5/4.0)	
Honors: Annual Merit Based Full Scholarship from 2006 to 2009; Class of 2010 Outstanding Graduate	
Relevant Coursework: Probability and Statistics, C++ Programming, Mathematical Modeling with Matlab	

PROFESSIONAL EXPERIENCE

CITIGROUP, INC.	July 2013 – Present
<i>AVP, Model Risk Management</i> – New York, NY	June 2015 – Present
• Validate models for Basel Market Risk, Standard Initial Margin Model (SIMM), CCAR Market Risk RWA projection, CCAR Scenario Design, and Economic Capital, etc.	
• Familiar with SR11-7 / OCC 2011-12 and knowledge of Basel Regulatory framework including the Fundamental Review of Trading Book (FRTB).	
• Implement backtesting, P&L attribution analysis (PAA), benchmarking, sensitivity analysis, stress testing and other performance tests as part of the validation process, and monitor the model performance measures.	
• Establish relationship with model developers, risk managers and internal auditors; attend Regulatory review meetings.	
• Manage firm-wide Scenario Design validation projects for CCAR 2017, which covers the forecasting of over 500 macroeconomic variables; collaborate with external resources on validation planning, progress monitoring, testing, and report drafting.	
<i>AVP, Model Risk Management</i> – Tampa, FL	January 2015 – June 2015
<i>Analyst, Model Risk Management</i> – Tampa, FL	July 2013 – December 2014
• Set up the On-going Performance Assessment (OPA) framework for Trading Book Market Risk models including VaR, Stressed VaR, IRC and CRM across all asset classes; monitored performance measures and presented quarterly results to key stakeholders.	
• Led Tampa Market Risk team of 2-4 people with responsibilities include: resource allocating, project planning, status tracking and new member training.	
• Validation projects include: RiskMetrics Historical VaR model, Asset Liability Management (ALM) Economic Capital model, etc.	

INTERNSHIP AND TEACHING ASSISTANT EXPERIENCE

CHINA CONSTRUCTION BANK – Jiangxi, China

May 2012 – July 2012

Risk Management Summer Intern

- Reviewed the Internal Ratings-Based (IRB) Approach for capital requirements under Basel II, monitored the performance of retail and wholesale portfolios, conducted monthly risk assessments and provide feedback on model performances.
- Collected corporate and retail data using SQL, and performed statistical analysis on risk parameters like Probability of Default (PD), Loss Given Default (LGD) and Exposure at Default (EAD).

GEORGIA INSTITUTE OF TECHNOLOGY – Atlanta, GA

August 2011 – May 2013

Graduate Teaching Assistant

- Teaching assistant of graduate level Fixed Income Securities and undergraduate level Calculus III, taught recitation classes, graded exams and held office hours. Received excellent student evaluations.

CURRICULUM PROJECTS

- Asset Allocation:** Analyzed and developed tactical asset allocation strategies using various indicators such as the leading economic moving average, momentum, sentiment and fundamental factors. (Spreadsheet & Bloomberg Terminal)
- Option Pricing:** Priced American options and calculated Greeks using the binomial tree, Monte Carlo and Finite Difference Method (FDM). Utilized FDM and iterative methods to price basket options. (C++ & Matlab programming)
- Fixed Income:** Hedged bond portfolios using duration, convexity and the Nelson-Siegel model. Constructed interest rate trees with the Black-Derman-Toy model and applied the lattice to price interest rate derivatives like swaps. (Excel programming)
- Risk Modeling:** Implemented the KMV-Merton Model and calculated Distant to Default with explanatory variable data (7GB size) of 1000 companies. Constructed in-sample estimation and out-of-sample forecasting. (SAS programming)
- Stochastic Processes:** Simulated short-rate models such as the Vasicek and Cox–Ingersoll–Ross, using the Maximum Likelihood Estimation to generate input parameters. (R programming)

SKILLS

- Programming Skills:** Python (NumPy, SciPy, Pandas), R, Microsoft Office (including VBA), Unix, Matlab, SAS, LaTex

Fan Zhang

121 West Main St. STE 3U | Milford, CT | (203) 710-4536 | zhangfan0805@gmail.com

EDUCATION

Yale School of Public Health, New Haven, CT

Master of Public Health in Biostatistics, 2015

Zhejiang University, Hangzhou, China

Bachelor of Science in Biological Science, 2012

EXPERIENCE

People's United Bank, Bridgeport, CT

Date July 2015-present

Model Validation Analyst

- Responsible for validating internal models to reduce potential model risk within the bank, majorly working on DFAST project, Liquid & Time Deposit Volume Projection project, and Anti-Money Laundering project.
- Provided solid statistical support to remediate existing model issues
- Independently built secondary models to ‘challenge’ and improve primary models
- Conducted annual model assessments to monitor general model performance
- Maintained the Model Inventory within Governance Risk Compliance (GRC) system to align with regulator requirements

Yale Center for Analytical Sciences, New Haven, CT

Date May 2014-Jan.2015

Graduate Research Assistant

- Led, or had major role, in quantitative analysis on two projects:
 - Built Logistic and Ordinal Logistic Regression Model to evaluate influence of Perihematomal Edema on outcome of patients with Intracerebral Hemorrhage
 - Built Random Regression Model to test effects of intensive technical training of parents compared to basic parent education for young people with autism in a 24-week Multi-Center Clinical Trial
- Attended Research Design Clinic, providing advice and evidence-based analysis service to clients
- Worked as teaching assistant of SPSS Lab, guiding physicians to solve practical data analysis problems

Yale Institution for Social and Policy Studies, New Haven, CT

Date Oct.2014-May.2015

Quantitative Graduate Researcher

- Analyzed massive data sets from National Highway Traffic Safety Administration, performing data manipulation using R language.
- Validated and reassessed the influence of Election Day on the number of traffic accidents from 1975 to 2012.

SKILLS

- Computer: R, SAS, SQL, Endnote, SPSS, Microsoft Access, Microsoft Excel, and Visual Basic

HONORS AND LEADERSHIP

- Vice President, Yale Biostatistics Student Association (2014-2015)
- Dean’s Prize for Outstanding Master Thesis (2015)

PUBLICATION

- Fan Zhang and Peter M. Aronow. 2016. Driving fatalities on US presidential election days: a reanalysis. *BMC Research Notes*. 2016(9): 341.

XIAORAN (SHARON) ZHANG

343 Gold Street Apt 2415, Brooklyn, NY 11201 | 917-808-6033 | xz1427@nyu.edu

EDUCATION

New York University

Master of Science in Financial Engineering, GPA 3.80/4.00

New York, NY

May 2017

Relevant Coursework: Time Series, Stochastic Process in Finance, Quantitative Methods in Finance; R in Finance; High Frequency Trading; Financial Computing (Python)

University of Electronic Science and Technology of China

Bachelor of Science in Finance and Electrical Engineering, GPA 3.93/4.

Chengdu, China

Sept 2011 – June 2015

Honors: National Scholarship (full tuition; top 1% students); First Prize in National Math Competition

RELEVANT EXPERIENCE

Standard Chartered Bank

New York, NY

Summer Quantitative Associate, FX Option (FXO) Trading and Research

Jun 2016 – Aug 2016

- Formulated strategy ideas based on FXO market analysis and paper traded through Brexit by using various underlying option structures. Used Auto Gamma Hedging (AGH) algos to manage the Delta/Gamma risk of the portfolio.
- Monitored adherence to risk exposure for all trading activities using quantitative measures, including Value at Risk (VaR) and Credit valuation adjustment (CVA).
- Researched and developed systematic FX option volatility trading strategies in G10, Asia and LATAM currencies. Formulated a filter logic to further optimize trading strategies for maximizing P&L and minimizing risk. Analyzed different option structures by plotting its payoff diagrams and other Greek sensitivities
- Managed market risk across asset classes including interest rates and rates derivatives, equity and equity derivatives, credit products, commodities and securities financing
- Performed advanced data and statistical analysis in support of and the creation of statistical models, including PCA, ARIMA, regression and multivariate models.

Bank of China

Beijing, China

Summer Risk Analyst

Jun 2015 – Aug 2015

- Analyzed and monitored interest rate risk exposure through 3 methods of VaR calculation (the analytical, historical and Monte Carlo Simulation method)
- Completed review calculation processes, such as for economic capital, and validation processes as required for government compliance and internal capital and performance measurement processes
- Used the comprehensive suite of VBA functions to accurately quantify risk exposure. Monitored counter-party credit risk based on potential future exposure by running the transactions through a Monte Carlo simulation
- Maintained the research database, renewed and improved it by SQL server

Mitacs Globalink Institute

Fredericton, Canada

Data Analyst

Jun 2014 – Aug 2014

- Performed data quality validation and cleansed any obsolete and low-quality data for the database.
- Developed a new model and automated the process on bond call price calculation by using SAS and SQL.

RESEARCH EXPERIENCE

UESTC Student Research Training Project

Chengdu, China

Research Analyst

Apr 2013 – Oct 2014

- Improved the modern portfolio theory (MPT) portfolios by adding a probability constraint to control portfolio exposure to high loss based on the Portfolio optimization and efficient frontier theory
- Evaluated this methodology with innovative perspectives including separating developed and developing markets and using different methods to estimate covariance matrix

SKILLS

Skills: MATLAB, R, SAS, C++, Java, E-views, VBA, Python, STATA, SQL, Bloomberg and Reuters

Leadership: 2013 Conference Delegate of *Harvard Project for Asian and International Relations* (HPAIR), College of William of Mary Summer Camp Team Leader

Interests: Accordion player, yoga (with 10+ years training experience), reading biographies, poker