

RUTGERS

FSRM Newsletter

From the FSRM Director

Welcome to the 2019 Summer issue of the FSRM newsletter. It is my great pleasure to share with you the latest highlights and activities of the program.

Let me start by congratulating our Class of 2019 May graduates -- there are 14 of them. They have accomplished so much during their studies during the past two years. We wish them the best of luck towards the next stage of their career. A graduation dinner was held at Rutgers Club on May 13 to celebrate their achievements.

I also wish to introduce you Mr. Mohannad Aama, our founding director of the newly established Office of Professional Programs, which will oversee career services, industry relations and Alumni relations for both the FSRM and MSDS programs. Mr. Aama is a wall street veteran. His broad expertise and excellent leadership will certainly enhance our services to students and our connection to all alumni and friends. We are excited and honored to have him on our team.

In this issue we will cover our winter alumni dinner that was held at McGettigan's restaurant in New York City. We will also cover orientation day that featured a morning welcome by Chairwoman Dr. Regina Liu followed by Professor Chen the Director of the program who spoke in detail about the program and the services it offers. The day progressed with speakers from professional services as well as a variety of University services. Orientation day also featured 2nd year student internship presentations.

We had the honor of having several excellent practitioner seminar speakers in the last year. They included Dr. John B. Guerard, Jr. of McKinley Capital Management, Mr. Russell Dowson and his analytics team from Zoeitis Inc., and Mr. Jerome Gilbert, IBM North American zAnalytics technical leader. Their interesting, insightful and informed presentations were well received by our students.

In the Faculty Profile section, we introduce award-winning Professor Han Xiao who has taught FSRM classes since the beginning. We will also introduce Professor Min Xu, a new faculty member who just joined us last year. Welcome, Professor Xu.

We will also introduce two current students: Sheeba Wali who will be interning this summer with Royal Bank of Canada and Jack Ren who is currently interning with IFS Securities.

I hope you will enjoy reading this newsletter. As always, we welcome any comments and suggestions you may have, and will be glad to hear any news from you. Please keep sending your feedback to us and please follow our newly launched social media accounts. I wish you and your families all the best and am looking forward to a new exciting academic year.



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The first FSRM annual alumni dinner was held on February 7th, 2018. It was a raining day but thirty five of our graduates came for an evening of wonderful conversations and re-connections. The dinner was held at McGettigan's New York City. It was a memorable time enjoyed by all. Professor Chen and Mr. Libretti attended the dinner. Professor Regina Liu, Chair of the Department of Statistics, sponsored the event and sent her regards to everyone.

2018 Fall Orientation for FSRM & MSDS Students



Ruoyu Ren (Jack) -
My summer
internship at
Imagine Software.



Wanting Tan
Internship at
Wework.



Professor Chen opening
the presentation and
discussing expectations.

Xiang Shi Munich
Reinsurance
internship
presentation.



Mr. Mohannad Aama CFP, FRM Joins the Team



We are pleased to announce that **Mr. Mohannad Aama** will be serving as the Managing Director of the newly established Office of Professional Programs at the Rutgers' Department of Statistics. The Office of Professional Programs will provide comprehensive and unified services to students in both FSRM and MSDS programs, combining the services we currently offer separately to FSRM and MSDS. Its functions

include career development services, alumni services, industry relationship, and outreach activities. The primary goal is to provide the necessary resources and training to help you achieve your professional goals. This goes beyond our efforts to: 1) increase the number and scope of industry relationships and corporate partners to bring about more job and internship opportunities for you, and 2) provide you with the needed professional assistance to successfully land and navigate job interviews.

Prior to joining Rutgers, Mr. Aama worked in the financial services industry for the past 15 years in various capacities including equity research, portfolio management and risk management. He holds an MBA degree with a concentration in Finance and Accounting from the Simon School of Business at the University of Rochester. He also holds FRM and CFP® certifications. His broad expertise and experiences will greatly enrich our programs and the department as a whole.

Practitioner Seminar Series

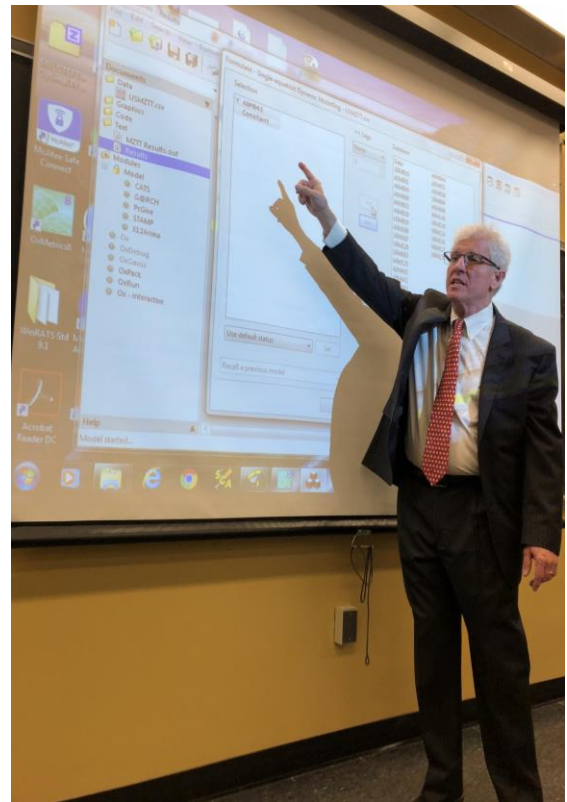
Data Mining for Investments and Portfolio Analysis

An introduction to Financial Forecasting in Investment Analysis

By Dr. John B. Guerard, Jr., Ph.D.

Dr. John B. Guerard, Jr., Ph.D. is a Director of Quantitative Research at McKinley Capital Management, LLC since 2005. Dr. Guerard's focus is on the maintenance and enhancement of the firm's quantitative capabilities and investment models. His passion for global equity markets, along with his academic credentials and broad practitioner experience, make him a valuable member of the firm's team. Prior to this, Dr. Guerard held a number of senior-level positions including Vice President at Daiwa Securities Trust Co. where he co-managed the Japan Equity Fund with Nobel Prize winner Dr. Harry Markowitz.

Dr. Guerard presented his professional and academic experiences to the students in September 2018.



During his two-day event he walked the students down wall street covering topics as financial forecasting in investment analysis and the use of financial forecasting in making business decisions. Topics included types of businesses, income statements, balance sheet, annual cash flow statements and ratio analysis and working capital. The event moved on to the risk and return of equity and building capital asset pricing models. The two-day event concluded with topics on data mining and a detailed conversation on robust regression and stock selection in the global equity markets.

Bloomberg training at the Bloomberg International Headquarters New York City, October 5th, 2018

FSRM students had an opportunity to tour Bloomberg HQ business campus and then train on the Bloomberg terminal.

This value added training is provided by the program in order to prepare students for upcoming academic and professional work.



Zoetis Inc. internship opportunities and careers with the company seminar October 12th, 2018

**Speakers: Russell Dowson, Senior Director Business Analytics and
Saba Belay, Manager Business Analytics.**



Mr. Dowson has built a team of Data Scientists to support data driven decision making across the Zoetis executive team.

Saba Belay a Rutgers University graduate has a Masters in Statistics and Quantitative Finance.

“AI Everywhere – Putting Smart to Work”

By Jerome Gilbert – IBM North America zAnalytics Technical Leader

Jerome is the leader of the North America zAnalytics technical sales team where he has an Enterprise wide role driving analytics solutions on System z with a focus on creating and delivering data strategies and analytic agendas for IBM's customers. Jerome has been with IBM 7 years and was a professional



hire after 25 years in the Financial Services industry where he played a continued role in managing corporate data. Jerome has been a longtime member of IBM's customer councils and continues to be an advocate for the field in the areas of the database engine, database tools and Real Time Analytics.

Jerome and his team are currently delivering the position and value statement for the integration of AI with the core business process of IBM's largest Enterprise customers.

On Friday February 22, 2019 the FSRM program hosted Jerome Gilbert, North America Technical Leader for System z Analytics at IBM. Titled “AI Everywhere – Putting Smart to Work”, Jerome’s presentation touched on how Data is now the basis of competitive advantage for many firms and how the growth of AI is expected to proliferate both in consumer and enterprise use and spending. The standing room only crowd listened to Jerome as he covered the 5 Machine Learning Personas (Steward, Engineer, Scientist, Developer and Analyst) and the importance of being good “Data Stewards” as the type and quantity of data collected increases and touches so many aspects of our lives.

Faculty Profile



Professor Han Xiao

Education: Ph.D. The University of Chicago

Research Interests: Teaching and research in nonstationary and nonlinear time series, high dimensional analysis, algebraic statistics, and random matrix theory.

Professor Han Xiao received his PhD in statistics from The University of Chicago. His research interests include time series analysis, high dimensional statistics, random matrix theory and extreme value theory. Prof. Xiao is especially interested in complex time series data, including nonlinear time series, nonstationary time series, functional time series, multivariate/high dimensional time series, and matrix/tensor-valued time series, which are ubiquitous in economics, finance and many other areas. He has been focusing on two directions: 1. testing the independence, whiteness and causality among component series, and 2. developing models and algorithms that are able to capture and extract the dynamics from the complex-structured data.

In addition to mentoring and guiding student-led research projects, Professor Xiao has taught three courses in the FSRM program (FSRM563: Regression Analysis in Finance, FSRM565: Financial Time Series Analysis, and FSRM588: Financial Data Mining). Prof. Xiao has been constantly adapting and revamping the course materials through the years to better accommodate students who are interested in Financial applications and risk management. His courses have been well received by the students. Professor Xiao was awarded the "Excellence in Teaching and Mentoring Award" by the Rutgers School of Graduate Studies in 2018.



**Professor
Min Xu**

Education: Ph.D. Carnegie Mellon University (Machine Learning)

Research Interests: Network analysis, nonparametric estimation, and high-dimensional statistics.

Professor Min Xu holds a Ph.D. in Machine Learning from Carnegie Mellon University and was previously a post-doctorate researcher and lecturer at the Wharton School of the University of Pennsylvania and a visiting scholar at the University of Cambridge. Professor Xu studies emerging estimation problems in statistical machine learning, with emphasis on nonparametric methods and network data analysis. His research has been published in leading machine learning conferences such as NeurIPS, ICML, KDD, COLT and journals such as the Annals of Statistics and the Journal of Machine Learning Research.

Professor Xu currently teaches FSRM 588: Financial Data Mining, which is a comprehensive course on modern machine learning and data mining methods, such as deep learning, SVM, boosting, lasso, and SVD, with applications to finance. In the course, the students learn not just how to use machine learning methods but also how to build, modify, and extend these methods to diverse problems.

Alumni Profiles

Yi Ren (Wendy)



I'm so glad that I chose to join FSRM program where students can learn both finance and statistics knowledge with many real-world applications. The program encourages and guides students to look for jobs and has workshops about resume and job-hunting strategies. The amazing part of the program is providing many referral opportunities. I was lucky to intern with Imagine Software through an internal referral. In the internship, I had chance to practice what I learned from the courses, improved my technical skills and of course added a good experience on my resume.

Currently, I work as a Business Intelligence Engineer at Amazon. I can fully make use of what I learned from FSRM to my job to help me solve challenges. FSRM played an important role in helping me find this position.

Yuqian Shi is working at Societe Generale as a model validation analyst. Previously, he took an internship at Valley Bank (former name: Valley National Bank) also as a model risk management analyst.

Yuqian Shi received his bachelor's degree in Mathematics from Fudan University in 2014. The undergraduate study equipped him with solid training in applied mathematics and computing science. Seeking to put his mathematics knowledge into financial industry, Yuqian was lucky to find FSRM a perfect match that bridges the theory with real industry practice. Through well-designed coursework and dedicated FSRM practice seminars, Yuqian was able to learn skills that enabled him to successfully transition to his professional career.



"I am always grateful for my studying experience at FSRM program because the knowledge I learned here is exactly what is used in my career. From classical statistics inference to the modern data analysis techniques like machine learning, the courses almost include all fundamental techniques that are prevalent for decades in the financial risk management

field, as well as some innovation aspects in the banking industry; From the real world probability measure learned in the regression and time series analysis, to the risk neutral probability measure introduced in stochastic process, the probability models enable me to analysis the world from both backward looking and forward looking.

I think the meaning of FSRM is not limited to my career path development, but also a such wonderful journey and life experience that allows me to wander around different techniques to interpret data and explore the truth.”

Joshua Shamouil

Josh Shamouil is a true Scarlet Knight completing his undergraduate degree in mathematics at Rutgers University and then, pursuing the FSRM degree soon after graduation. Outside of academics, Josh was an active member of the Ultimate Frisbee Team, captain of the Rutgers Freestyle Snowboard Team and a national competitor. In addition, Josh was a board member of the Rutgers Quantitative Finance Club. During his time in the FSRM program Josh was involved in internships, holding quantitative positions at several companies including Imagine Software, Community Informatics, and the DTCC. Josh now works as a quantitative analyst at Markov Processes International, a FinTech company that focuses on analytics, research, and reporting solutions. He hopes to keep exploring data science and creative investment strategies.



“One of the most valuable resources in the FSRM program are the staff members. Not only does the FSRM have interesting and challenging courses in statistical applications in finance but they also prepare you for life outside of the classroom. During my time in the program I was able to polish my resume, prepare for interviews, and use the FSRM resources to land my first internship. If it weren’t for Mr. Libretti and the amazing FSRM staff I would not be where I am today.”

Student Profiles



Sheeba Wali earned her first Master's in Business Administration from IBS Hyderabad, majoring in finance and banking. She is a Computer Engineering graduate from Mumbai University. Sheeba is a risk professional with 5 years of work experience in the Credit Risk Management domain working with Big Four's Deloitte Touché & Tohmatsu India Ltd and several Indian banks including Yes Bank Limited and Central Bank of India. Given her experience in

predictive modelling and risk management, Sheeba developed interest for further honing her statistical and analytical skills and thus decided to join the FSRM program in Fall 2018. Sheeba believes that the hallmark of the FSRM program is its reputation in the industry attributed to the expert faculty and strong alumni network, which will further assist her in becoming an astute Risk analyst. Sheeba will intern at the Royal Bank of Canada Summer 2019.

Ruoyu Ren (Jack) earned his bachelor's degree in Mechatronics Engineering at South China University of Technology. After graduation from college, Ruoyu worked for FANUC Robotics developing Industrial Automation solutions, and earned his master's degree in Computer Science at International Technological University. Ruoyu always had a passion for finance and statistics. He set out looking for a program that would prepare him for a career in quantitative finance and risk management. Currently Ruoyu is working to achieve his master's degree in FSRM and progressing his career towards a quantitative risk and investment analyst. Ruoyu was



a Financial Services and Risk Technology intern at Imagine Software from 2017 to 2018. He is currently working with a team to develop an Interest Rate prediction model as a Fixed Income intern at IFS Securities, an independent broker-dealer firm based in Atlanta, Georgia.

“The FSRM program at Rutgers helps me a lot to dive deep into financial statistics and risk management knowledge and has given me an incredible background to be a quantitative risk analyst. The curriculum covers all key dimensions of financial statistics and risk with an emphasis on real world financial data analysis and applications. The professional services benefit a lot of students to get their first exposure to financial technology, brokerage and banking industries. The practitioner seminar invites outstanding professionals from industry, providing a good opportunity for us to learn practical applications and to network with potential employers. Some of the courses are instructed by well-known industrial practitioners, demonstrating us how statistical theories are applied in buy-side investment and risk management. Practical projects, real world case studies, opportunities to talk with outstanding alumni

-Please join the FSRM alumni private group on LinkedIn here:
<https://www.linkedin.com/groups/4240269/>

-Follow the FSRM program's social media feeds:

Twitter <https://twitter.com/RutgersFSRM>

LinkedIn <https://www.linkedin.com/showcase/rutgers-ms-financial-statistics-risk-management/>

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