MAJEED SIMAAN

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EDUCATION

Rensselaer Polytechnic Institute (RPI) *2018*
Ph.D. in Finance with dissertation focus on Financial Institutions and Risk Management

London School of Economics and Political Science (LSE) *2013*
Pursuing research at the Risk and Stochastics Group, Department of Statistics

Tel Aviv University (TAU) *2012*
Pursuing graduate training in Finance and Economic Theory

University of Haifa *2010*
MA Statistics (Hons) major in Actuarial Science
BA Statistics

ACADEMIC POSITIONS

- Tenure-Track Assistant Professor of Finance at **Stevens Institute of Technology** *2018 - Present*
- Graduate Teaching/Research Assistant at **RPI** *2013 - 2018*
- Teaching Assistant at **LSE** *2012 - 2013*
- Graduate Teaching/Research Assistant at **TAU** *2012*

RESEARCH INTERESTS

Banking and Risk Management
Financial Networks and Interconnectedness
Portfolio and Asset Allocation Theory

PUBLICATIONS

1. Gupta, A., Kar, K., & Simaan, M. (2019) **Filtering for Risk Assessment of Interbank Network** *Forthcoming in the European Journal of Operational Research*
2. Simaan, M. & Simaan, Y. (2019) **Rational Explanation for Rule-of-Thumb Practices in Asset Allocation**. *Forthcoming in Quantitative Finance*
3. Simaan, M., Simaan, Y., & Tang, Y. (2018). **Estimation Error in Mean Returns and the Mean-Variance Efficient Frontier**. International Review of Economics & Finance, 56, 109-124.
4. Gupta, A., Simaan, M., & Zaki, M. J. (2016). **Investigating Bank Failures Using Text Mining**. *Proceedings of the 2016 IEEE Symposium Series on Computational Intelligence.*

PAPERS UNDER JOURNAL REVIEW

1. Clark, B., Francis, B., & Simaan, M. **Risk Taking, Diversification, and the U.S. Bank Size Anomalies** *under review*
2. Clark, B., Edirisinghe, C., & Simaan, M. **Estimation Risk and Implicit Value of Index-Tracking** *under review*
3. Gupta, A., Simaan, M., & Zaki, M. J. **When Positive Sentiment is Not so Positive: Textual Analytics and Bank Failures** *being revised*

WORK IN PROGRESS

1. Gultekin M. & Owusu, A. & Shohfi, T. & Simaan, M. **Do Analysts Reports Still Have Value? Evidence from Machine Learning**
2. Simaan, M. & Simaan, Y. **A Simple Mean-Variance-Skewness Paradigm for Asset Allocation**
3. Clark, B. & Lo, A. & Siddique, A. & Simaan, M. **Value of Location and Communities in Credit Derivatives Markets**

4. Boudt, K. & Simaan, M. & Cela, M. **In Search of Return Predictability: Evidence from Machine Learning and Tactical Allocation in R**
5. Simaan, M. **Global Minimum Variance Portfolio: A Horse Race of Volatilities**

STUDENTS

- **Zhaokun Cai**, Ph.D. in Financial Engineering, School of Business at Stevens Institute of Technology: Co-Adviser along with Prof. Zhenyu Cui *May, 2021*
- **Turki Alelyani**, Ph.D. from the School of Systems and Enterprises at Stevens Institute of Technology: External Adviser for Doctoral Thesis on "Software Crowdsourcing Design Approach Through Machine Learning and Experimental Design" *May, 2019*
- **Davide Vena**, Master of Science in Engineering from the Department of Applied Mathematics and Computer Science at Technical University of Denmark (DTU): External Adviser for Master's Thesis on "Active Index Allocation with the Black-Litterman Model" *Aug, 2018*

PRESENTATIONS AND INVITED TALKS

R in Finance Conference - Chicago, IL May 2019

- Presenting "In Search of Return Predictability: Evidence from Machine Learning and Tactical Allocation in R" (slides)

EFA Annual Meeting - Miami, FL April 2019

- Presenting "How Have Stock Markets Responded To 35 Years of Analyst Reports? Evidence From Machine Learning and Textual Analysis" (slides)
- Discussing "Overconfidence, Sentiment and Beta Herding: A Behavioral Explanation of The Low-Beta Anomaly" (slides)
- Chairing "Asset Pricing" Session

Data Science + FinTech JC-NY Invited Talk hosted by qplum - New Jersey, NJ Jan 2019

- Presenting "Machine Learning and Tactical Asset Allocation" (slides)

The FinTech Conference at St. John's University - New York, NY Nov 2018

- Discussing "Quantifying Heterogeneity in Financial Time Series for Improved Prediction" (slides)

FMA Annual Meeting - San Diego, CA Oct 2018

- Presenting "Estimation Risk and Implicit Value of Index-Tracking" (slides)
- Discussing "A study of improved covariance matrix estimators for low and diversified volatility portfolio strategies" (slides)
- Chairing Session 106 on Portfolio Theory

R in Finance Conference - Chicago, IL May 2018

- Presenting "Rational Explanation for Rule-of-Thumb Practices in Asset Allocation" (slides)

EFA Annual Meeting - Philadelphia, PA April 2018

- Presenting "Risk Taking, Diversification, and the U.S. Bank Size Anomalies"
- Chairing "Trading Strategies" Session

FMA Annual Meeting - Boston, MA Oct 2017

- Presenting "Risk Taking, Diversification, and the U.S. Bank Size Anomalies" (slides)

INFORMS Annual Meeting - Nashville, TN Nov 2016

- Presenting "The Implicit Value of Tracking the Market" (slides)
- Presenting "Investigating Bank Failures Using Text Mining" (slides)
- Chairing two sessions on Data Mining and Text Mining

FMA Annual Meeting - Las Vegas, NV Oct 2016

- Discussing "On the Value of Portfolio Optimization in the Presence of Estimation Risk: The Case with and without Risk-free Asset" (slides)

Financial Risk & Network Theory Conference - University of Cambridge Sep 2016

- Presenting "Filtering for Risk Assessment of Interbank Network"

International Risk Management Association Conference, The Hebrew University of Jerusalem, Jun 2016

- Presenting "Filtering for Risk Assessment of Interbank Network"

R in Finance Conference - Chicago, IL May 2016

- Presenting "The Implicit Value of Tracking the Market" (slides)

R in Finance Conference - Chicago, IL May 2015

- Presenting "Global Minimum Variance Portfolio: a Horse Race of Volatilities" (slides)

International Rome Conference on Money, Banking, and Finance - Rome, Italy Dec 2014

- Presenting "The Sampling Distribution of the Mean-Variance Efficient Frontier"

Ph.D. Presentation Day, LSE - London, UK May 2013

- Presenting "Estimation Risk in Asset Allocation Theory"

Research Students' Conference (RSC), Lancaster University - Lancaster, UK Mar 2013

- Presenting "Portfolio Management: Ad-Hoc Techniques and Estimation Risk"

HONORS AND AWARDS

Doctoral Student Travel Grant, American Finance Association (AFA)	*2017*
Speaker Travel Grant, R in Finance Conference	*2016*
Best Ph.D. Paper, the 23rd International Rome Conference on Money, Banking, and Finance	*2014*
Graduate Studentship Scheme, LSE	*2012*
Recipient of Fulbright, the United States-Israel Educational Foundation (declined)	*2012*
Outstanding Student Honors Award in the Department of Statistics, University of Haifa	*2006*

TEACHING EXPERIENCE

Stevens Institute of Technology

- Lecturing Introduction to Financial Risk Management for the Financial Engineering graduate level at the School of Business — *2018-Present*

RPI

- Assisted different classes taught at the Quantitative Finance and Risk Analytics and Business Analytics M.S. programs: Risk Management, Financial Econometrics, Financial Computation, Financial Modeling, Financial Simulations, Statistics for Managerial Decision Making, Statistical Methods, and Business Analytics Capstone *2013-18*
- Delivered a lecture on Financial Time Series Analysis using `R` via the Interactive Brokers Webinar Series (video is available here) *06/2017*
- Delivered a two-days bootcamp on the basics of `R` Programming for graduate students *01/2015*

LSE

- Delivered 46 weekly tutorial sessions for an undergraduate class on Elementary Statistical Theory *2012-13*
- Served as a teaching assistant for the Applied Regression using `R` class *Spring 2013*

Tel Aviv University

- Served as a teaching assistant for the 'Quantitative Methods for Business' MBA course taught at the Sofaer International MBA program *11-12/2011*

University of Haifa

- Delivered tutorials for the Elementary Statistical Theory and Statistical Inference undergraduate classes taught at the departments of statistics and economics *2007-09*
- Tutored over 1000 hours in subjects related to Statistics, Mathematics, Finance, and Quantitative Methods via the Section of Academic and Personal Assistance *2006-10*

ADDITIONAL RESEARCH EXPERIENCE

RPI

- Helped to develop proprietary algorithms related to equity and fixed income tactical asset allocation strategies *2016-17*
- Served as an research assistant for the first student managed fund (SMF) of the Lally School of Management and Technology (Lally) *02-05/2016*
- Applied state-of-the-art predictive analytics tools for a research project that analyzes hierarchical data related to the business value of technology-mediated online communities. *2014-15*

Pantheon Ventures, London

- Part-time Quantitative Research Analyst for developing quantitative financial models to forecast private equity (PE) performance and to manage risk involved in PE. *Summer 2013*

Tel Aviv University

- Served as a research assistant for a Management Science revise-and-resubmit research paper. Conducted panel data econometrics using selection models and propensity score matching to investigate the diffusion of demand shocks in a recommendation network. *2012*

EXTRA CURRICULAR

Ad-hoc referee for European Journal of Operational Research, International Review of Economics and Finance, European Financial Management, Asia Pacific Journal of Financial Studies, High Frequency Journal, Decision Sciences Journal

Written a number of financial analytics related articles (see e.g., Linkedin or Rpubs)

Contributor to the Interactive Brokers Quant Lab (**IBKR Quant**) (see link) *2017-2018*

Served as a judge for the annual predictive analytics competition hosted by Lally *2015-17*

Provided statistical and data analysis consulting to a large number of students (both undergraduate and graduate) from different science disciplines *2006-13*

Graduate officer and member of the RPI Boxing Club *2015-2018*

Member at the RPI Judo Club *2013-2014*

General Interests: music, travel, martial arts (black belt in Goju Combat Jutsu), boxing/kickboxing (amateur fighting record 5-1-0)

SKILLS

- **Technical**: Financial Engineering, Computational Optimization, Machine/Statistical Learning, Time Series Analysis and Forecasting, Text/Data Mining, NLP, Numerical/Simulation Analysis, Multivariate Analysis
- **Programming Languages**: Expert in R (see contributions on GitHub and RPubs), strong command of Python and MATLAB, medium command of SAS, basic knowledge in HTML and C++
- **Statistical Software**: SAS Enterprise Guide (SEG), STATA, MINITAB, EViews, SPSS
- **Databases**: CRSP, COMPUSTAT, I/B/E/S, Bloomberg, SEC EDGAR, Bank Data (FFIEC and FR Y-9C)
- **Other Softwares and Packages**: Linux (Ubuntu), Shiny, Plotly, Markdown, LaTeX, Dynare, MySQL
- **Spoken Languages**: Fluent in Arabic, Hebrew, and English; elementary proficiency in French