

# Jimmie H Lenz

Dr. Jimmie Lenz is an experienced executive, lecturer, and scholar in the field of banking and capital markets. Starting his career as an equity trader over 25 years ago, Jimmie found he reveled in fast moving atmospheres that required both strategic thought and the ability to take immediate action. His successes propelled him into a number of senior management roles within the finance community including leading an NYSE broker dealer with foreign and domestic operations, Chief Risk Officer and Chief Credit Officer at a top three broker dealer, and the Head of Predictive Analytics for one of the largest Wealth Management firms in the US.

Global firms and exchanges have engaged Jimmie to address issues related to strategy, analytics application, risk mitigation, and business efficiencies. This in-depth understanding of the capital markets industry has allowed him to provide crucial perspectives in foreign and domestic regulatory matters, including extensive work with outside counsels and the presentation of findings to the Security and Exchange Commission.

His passion for developing forward-looking strategies, merge his unique boots-on-the-ground understanding of how business operates with the academic application of new technologies.

Jimmie holds an undergraduate degree from the University of South Carolina, a Master of Science in Finance from Washington University in Saint Louis, and Doctor of Business Administration-Finance from Washington University's Olin Business School.

Lenz is a frequently speaker at academic and industry events primarily on topics related to risk management, innovation, and quantitative analysis, he has a number of pending patents related to his work in a broad range of areas.

## PROFESSIONAL AND BUSINESS EXPERIENCE

### Academic Director, Master of Financial Technology

Pratt School of Engineering, Duke University Durham, North Carolina

Present

Directs all aspects of the newest graduate degree at a top 15 engineering school, the second degree of it kind in the US. Duties include staffing, program and course content, interfacing with corporate sponsors, and research. Instruction in machine learning and blockchain specific courses.

### Clinical Assistant Professor of Finance

Darla Moore School of Business, University of South Carolina Columbia, South Carolina

Present

Currently teaching courses that are concentrated in various aspects of financial innovation, both the theory and practice, primarily to students in the business school. The curriculum is centered on the application of Machine Learning and Blockchain, which includes extensive hands-on experimentation, with emphasis on the Financial Services industry. A differentiator in the approach and instruction is the widespread use of the technologies, in experiments and assignments, that are commercially available to facilitate various solutions approaches for financial services business problems. In addition I direct the Student Managed Investment Fund course, which actively manages a portfolio of securities, again with an emphasis on hands-on application of learnings.

## Principal

**Financial Risk Group Charlotte, North Carolina** 2017 to 2019

Lead research efforts in financial services and power generation to support specific client needs in these spaces. Leveraging a team of individuals with deep subject matter expertise in areas of finance, mathematics, and financial engineering, problems related to all areas from front to back office are addressed. An in-depth knowledge and expertise in data analysis allows for some of the latest methods in machine learning and algorithmic solution to be applied when appropriate. Lenz also leads the litigation support efforts of the firm, leveraging deep industry experience and academic methods. Recent papers include; the findings and results of a methodology developed to scientifically monitor and detect probable sales practice issues based on a proven mathematical model, multiple papers on the valuation of electricity storage, utilizing dynamic variables in the surveillance of trade desks, and the application of machine learning techniques to assist in the automation of large scale process controls.

Lenz coauthored the white paper “Macroeconomic Effects On The Modeling Of Private Capital Cash Flows” and is currently assisting a number of foreign and domestic institutions in the implementation of the model.

## **Wells Fargo**

2010 to 2017

### Predictive Analytics

**Wealth and Investment Management Charlotte, North Carolina**

The need for Predictive Analytics, and previous success in applying this skill in former roles, led to Jimmie being named to this role for the Banks Wealth and Investment Management channel. This role is charged with the application of analytics to address opportunities and issues, and has been instrumental in pursuing the production and deployment of some of the solutions for which Lenz currently has patents pending. Solutions created have been based on theoretical work, as well as cutting edge machine learning techniques utilizing internal and external data. Problems addressed range from a more accurate characterization of client preferences utilizing behavioral attributes, to work on processes core to the business that relate to how resources are managed. In addition, this role has been tasked with analyzing and reproducing academic and industry papers to understand their veracity as it relates to different Wells Fargo entities. Given the diverse types of solutions required the ability to collaborate across the company with data scientists and subject matter experts is essential, as is partnership with academic and industry professionals.

### Director of Technology Risk

**Wealth and Investment Management Charlotte, North Carolina**

This role was charged with the development and implementation of a strategic framework to understand and assess all risks related to internal and external technology environments that facilitate one of the largest investment and wealth management groups in the United States. This group serves various types clients around the world via the third largest brokerage firm in the United States, private banking, mutual funds management, various lending facilities, and institutional retirement and trust. The success of this role is illustrated not only by the effectiveness but also through a number of pending patents for new analytical tools to forecast technology issues.

A track record of developing innovative strategic management and operational methodologies within dynamic environments made Jimmie a natural to define and develop this new group within a primary channel of the bank. Crucial to the role is coordination with enterprise efforts and regular interaction with both the OCC and the FRB, as well as the SEC and FINRA. Understanding and quantifying the risks of technology assets through a variety of means has allowed for a unique perspective by management and regulators, as well as the lines of business who depend on these tools. In addition to these responsibilities Lenz maintains memberships on a number of committees that benefit from the pioneering thought that is his hallmark (e.g. CCAR, Model Risk, etc.). The ability to leverage internal, industry, and academic practical knowledge and relationships has allowed for the development of models and approaches that have been industry leading and have provided quantifiable value to both the company and clients. Recognized in 2016 with the Wells Fargo Prodigy Award for the volume and breadth of his patent activity.

## Chief Risk and Chief Credit Officer

### Wells Fargo Advisors Saint Louis, MO

The primary component of this role was risk management for the retail brokerage firms of Wells Fargo and First Clearing Correspondent Services serving foreign and domestic clients of all types. Credit management which includes the underwriting of global clients and counterparties for the brokerage firm and for the other channels of the bank has been extrapolated beyond traditional lending to include certain exposure and leverage (e.g. derivatives) that the firm or its clients may engage in. In this role Jimmie interacted regularly with the primary securities and banking regulators to address inquiries of all types as well as to provide context and perspective on various elements of the business (e.g. risk appetite, effect of exogenous events, etc.).

Lenz led the development and patent applications of a number of quantitative solutions utilizing large data set time and panel data techniques to assess exposures in a dynamic environment. He applied similar approaches, utilizing historical observations and probability distributions to provide guidance for the consistent establishment of client trading/credit limits of futures products. Consistently recognized by his team for efforts to expand individual learning beyond traditional, or expected, horizons. During his tenure he oversaw the establishment of testing processes and procedures to address operational risk needs at the firm, BASEL reporting, and relevant portions of 17a-5. Member of firm's Executive and Management Committee.

## Director Banking and Capital Markets

### PricewaterhouseCoopers New York, NY

2007 to 2010

An in-depth knowledge of the investment industry has allowed for the successful management and establishing strategic direction of engagements with different types of foreign and domestic financial services companies, exchanges, and law firms. The creative application of knowledge and experience benefited several areas of the PwC Banking and Capital Markets advisory practice. Development of unique quantitative solutions to identify and assess behaviors related to high risk credit, trading, and counterparty activities was an emphasis of this role. Certain regulatory changes related to capital levels and risk weighted assets, on and off balance sheet, required an understanding and development of application models to accurately assess business responses in various global regulatory regimes, as well as to uncover competitive opportunities. The development and publication of algorithmic tools used to increase efficiency of large data assessments related to the forensic analysis of global banking activities was leveraged by the advisory group across a variety of clients and engagements.

Firms of all types benefited from the perspective that Lenz applied to issues ranging from asset management and transactional issues to quantitative cost benefit analysis. His understanding of the complete lifecycle of product development, application, and maturation was utilized by clients around the globe to address business needs and strategic planning matters.

## Vice President/Quantitative Execution Strategies

### Jefferies & Company Saint Louis/New York

2004-2006

Led an effort to develop, deploy, and integrate the Jefferies quantitative execution strategies (QES) into proprietary and commercial applications. The identification and mitigation of different exposures inherent to these strategies was a significant factor in the success. Integrated Jefferies proprietary algorithms on a number of execution and order management systems, used by foreign and domestic financial services companies. Oversaw all phases of this program to establish Jefferies presence as a premier algorithmic provider.

Managed the creation, development, and implementation of JETS -Jefferies Electronic Trading Solution, coordinated in-house staff and outside architects/developers. Following product roll out, continue to engage JETS users on product enhancements that addressed their needs, and coordinate these enhancements in future releases.

### Co-President, Co-Chief Operating Officer

**Bridge Trading, A Reuters Company** Saint Louis, Missouri  
1999-2004

Established strategic tone and managed all areas of an international brokerage firm, providing direction for sales, compliance, management, product, and business development. Met with foreign and domestic institutional clients on a regular basis to understand needs and concerns regarding different areas of the investment management process. In addition, acted as management representative to global parent company (Reuters PLC) with respect to all areas of firm policy and planning. As principal was responsible for execution of the firms FOCUS report submission.

### Director of Electronic Trading

**Bridge Trading Company** Saint Louis, Missouri

Engaged to develop and manage an area that emphasized institutional electronic trading and connectivity. This area also worked to expand the proprietary order routing network, supporting 800 institutions and 110 brokers worldwide while identifying and understanding situations that might negatively affect this initiative. Recruited and managed personnel to staff electronic desk for foreign and domestic trading. This included development of staff beyond technical skills, in order to leverage existing relationships. Worked with technical personnel at Bridge to solve technical issues that clients might have due to different order management systems and protocols, allowing clients to connect to Bridge that might otherwise have not been able to. Facilitated development of the flexibility for clients with various portfolio management and trading requirements to facilitate their unique styles and utilize the firm offering with a view to the risks involved in this type of venture and how to quantify and mitigate them.

### Senior Equity Trader

**The Interstate Group** Charlotte, North Carolina  
1994-1999

Institutional account coverage and trading of equities and equity derivatives for institutional clients of all types was a primary role focus. A recognition of client needs allowed Lenz to institute the first electronic trading system,

Institutional Order Entry, giving clients additional opportunities to access The Interstate Group. This pioneering effort in electronic trading provided the Interstate Group with a competitive advantage in a space becoming overly commoditized.

## Education

University of South Carolina, Columbia, South Carolina  
Bachelor of Arts

Washington University in Saint Louis, Saint Louis, Missouri  
Master of Science in Finance

Washington University in Saint Louis, Saint Louis, Missouri  
Doctor of Business Administration-Finance  
Dissertation: "A Traders Guide to the Predictive Universe- A Model for Predicting Oil Price Targets and Trading on Them"

## Licenses-FINRA

Series 4,7,9,10, 24, and 63

## Board Memberships

Neocova  
Chairman of the Strategic Advisory Board  
2019-Present

Zen Blockchain Foundation  
Board of Directors  
2019-Present

The Center for Finance and Accounting Research  
Board Member  
2015-Present

University of South Carolina Moore School  
Risk and Uncertainty Advisory Board Member  
2011-Present

## Presentations, Writings, Citations

18-Dec	Washington University in St. Louis, Olin Business School Graduation Keynote Speaker	Presenter
18-Nov	"Utilizing machine learning and big data in BSM" Asset & Liability Management and Balance Sheet Optimization Conference	Presenter
18-Nov	Estimating Risk Exposures using ML and AI Techniques and Governance of Advanced Data Modeling Techniques Professional Risk Managers International Association	Presenter
18-Oct	Macroeconomic Effects on The Modeling of Private Capital Cash Flows <i>Financial Risk Group</i>	Paper
18-Sep	Current Expected Credit Loss: Why This Expectations Are Different <i>Financial Risk Group</i>	Paper
18-Jun	The Operational Controls and Process Tipping Point: Is Machine Learning the Answer? <i>Financial Risk Group</i>	Paper
18-May	The McNair Institute Innovation and Free Enterprise Summit	Presenter
18-Apr	"Why Is Trade Desk Surveillance So Challenging?" <i>Financial Risk Group</i>	Paper
18-Feb	Private Capital Cash Flows <i>Financial Risk Group</i>	Paper
18-Jan	"Can WE Put A Price ON Higher Education" The Financial Revolutionist	Article
18-Jan	Quantifying the Value of Electricity Storage in Dynamic Use Environments Part 1 & Part 2	Papers
17-Nov	Risk USA - Understanding Behavior in Models	Presenter
17-Oct	Latham and Watkins- FinTech in Practice	Presenter
17-Oct	Sales Practices-Understanding the Behaviors They Incentivize	Paper
17-Oct	"Sales Practices Under The Microscope" The Financial Revolutionist	Article
17-Jul	"Know Your Customer? Are You Sure?" The Financial Revolutionist	Article
17-Jun	Bank Director Risk and Audit Committee Conference	Presenter
17-Jun	IBM Watson Smarter Risk Summit- Keynote Address	Presenter
17-May	Bank Fintech Partnerships-International Institute for Business and Growth	Presenter
17-May	IP and Innovation Summit -The Faber Institute	Presenter
16-Mar	"Burning Down Markowitz's House" The Financial Revolutionist	Article
16-Dec	"What to Know About the New Fintech Charter" Bank Director	Interview
16-Nov	Washington University Dissertation "A Traders Guide to the Predictive Universe-A Model for Predicting Oil Price Targets and Trading on them"	Paper
16-Nov	Davidson College Economic Seminar "How Quantitative Sciences Came to Rule Wall Street"	Lecture
16-Nov	Davidson College lecture "The Practical Application of Financial Theory in Banking and Brokerage"	Lecture
16-Oct	Washington University Corporate Finance-Risk Management Analytics & General	

	Practices	Lecture
22-Aug	"Loss Sequencing in Banking Networks: Threatened Banks as Strategic Dominos" (Tran, Vuong, Zeckhauser) Harvard Faculty Papers	Citation
16-Aug	Wealth and Investment Management Research Conference discussant- "Trading Costs of Asset Pricing Anomalies" Discussant with Toby Moskowitz	Presenter
16-Aug	"Bank Insider: Cryptofinance Will Not Be the End of Wall Street" Bitcoin.com	Interview
16-Jul	"High-tech ways banks are trying to save seniors from having their money stolen" Marketwatch	Interview
15-Nov	Washington University Corporate Finance-Risk Management General Practices	Lecture
15-Nov	Washington University Investment Theory-Risk Management Guiding Principals	Lecture
15-Oct	NICSA "Big Data in the Fund Industry"	Presenter
15-Sep	Compliance and Legal Society-Cybersecurity Panel Moderator	Presenter
15-Jun	Pfeiffer University-Fraud and Forensics Investigation Conference	Presenter
15-May	Keynote Speaker-The University of South Carolina Moore School Graduate Commencement	Presenter
15-Mar	"The Causal Impact of Market Fragmentation on Liquidity" (Haslag and Ringgenberg)	Citation
15-Feb	Paying it Forward: Washington University, Wells Fargo Advisors partner for a better world	Presenter
15-Jan	University of SC Moore School lecture "Risk Management in Financial Services"	Lecture
14-May	Securities and Exchange Commission Cybersecurity Roundtable	Presenter
14-Apr	Washington University MSFQ -Risk Management and the use of dynamic benchmarks	Lecture
9-Oct	"Wire Fraud Surges as Wealth Goes Electronic" Wall Street Journal	Interview
14-Apr	Washington University MSFQ -Risk Management and the use of dynamic benchmarks	Lecture
14-Apr	Washington University MSFQ -Risk Management and the application of theory	Lecture
14-Jan	University of SC Moore School lecture "Risk Management in a Dynamic Environment"	Lecture
13-Oct	Milken Global Conference-"The New Wall Street Risk Management Strategy" "Risky Business: The Credit Crisis And Failure" Part I and III (Arewa) Northwestern University School of Law "After the Storm-Realigning Hedge Funds and Prime Brokers in the Post Financial Crisis Marketplace" "Dark Pools of Liquidity" (Caplan, Cohen, Lenz, and Pullano) "Corporate IM firms eye financial services sector" Computer Weekly	Presenter Citation Paper Paper Interview