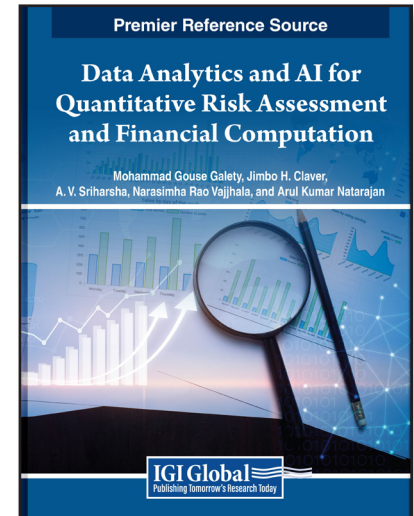


# Data Analytics and AI for Quantitative Risk Assessment and Financial Computation

Part of the Advances in Computational Intelligence and Robotics Book Series

Mohammad Gouse Galety (Samarkand International University of Technology, Uzbekistan), Jimbo H. Claver (Samarkand International University of Technology, Uzbekistan), A. V. Sriharsha (Mohan Babu University, India), Narasimha Rao Vajjhala (University of New York Tirana, Albania) and Arul Kumar Natarajan (Samarkand International University of Technology, Uzbekistan)



## Description:

In today's fast-paced financial landscape, professionals face an uphill battle in effectively integrating data analytics and artificial intelligence (AI) into quantitative risk assessment and financial computation. The constantly increasing volume, velocity, and variety of data generated by digital transactions, market exchanges, and social media platforms offer unparalleled financial analysis and decision-making opportunities. However, professionals need sophisticated AI technologies and data analytics methodologies to harness this data for predictive modeling, risk assessment, and algorithmic trading. Navigating this complex terrain can be daunting, and a comprehensive guide that bridges theory and practice is necessary.

**Data Analytics and AI for Quantitative Risk Assessment and Financial Computation** is an all-encompassing reference for finance professionals, risk managers, data scientists, and students seeking to leverage the transformative power of AI and data analytics in finance. The book encapsulates this integration's theoretical underpinnings, practical applications, challenges, and future directions, empowering readers to enhance their analytical capabilities, make informed decisions, and stay ahead in the competitive financial landscape.

The book provides a structured approach that covers foundational topics in quantitative risk assessment, data analytics, and AI, providing a roadmap for professionals to navigate the complexities of integrating AI and data analytics into financial practices. The book explores specific applications and methodologies, including machine learning algorithms for economic modeling and AI-driven strategies for risk management, providing readers with practical insights and strategies for success in the AI-driven financial future. With this book as a guide, professionals can confidently embrace the power of AI and data analytics to stay ahead in the ever-evolving economic landscape.

**ISBN:** 9798369362150

**Pages:** 330

**Copyright:** 2025

**Release Date:** October, 2024

**Hardcover:** \$325.00

**E-Book:** \$325.00

**Hardcover +  
E-Book:** \$390.00

## Topics Covered:

- AI Ethics and Bias in Financial Models
- Algorithmic Trading and High-Frequency Trading (HFT)
- Artificial Intelligence and Beyond
- Big Data Technologies in Finance
- Blockchain and Cryptocurrencies Risk Assessment
- Credit Risk Modeling and Assessment
- Derivative Pricing
- Fundamentals of Data Analytics and AI
- Liquidity Risk Measurement and Management
- Machine Learning Algorithms for Financial Modeling
- Market Risk Analysis and Value at Risk (VaR) Models
- Natural Language Processing (NLP) in Financial Analysis
- Operational Risk Management
- Portfolio Optimization and Asset Allocation
- Probability Theory and Statistical Analysis for Risk Assessment

**Subject:** Business & Management

**Classification:** Edited Reference

**Readership Level:** Advanced-Academic Level  
(Research Recommended)

**Research Suitable for:** Advanced Undergraduate Students; Graduate Students; Researchers; Academicians; Professionals; Practitioners

### Order Information

Phone: 717-533-8845 x100

Toll Free: 1-866-342-6657

Fax: 717-533-8661 or 717-533-7115

Online Bookstore: [www.igi-global.com](http://www.igi-global.com)

Mailing Address: 701 East Chocolate Avenue, Hershey, PA 17033, USA