

AI-DRIVEN FINANCE:

**THE FUTURE OF INVESTMENT AND
DECISION-MAKING**



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AI Driven Finance: Future of Investment and Decision Making



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AI Driven Finance: Future of Investment and Decision Making

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Preface

The world of finance is undergoing a profound transformation, driven by the rapid advancements in artificial intelligence (AI) and machine learning. Traditional methods of investment analysis, portfolio management, and decision-making are being redefined as algorithms and intelligent systems take center stage. This book, *AI-Driven Finance: The Future of Investment and Decision-Making*, was conceived to provide readers with a comprehensive understanding of how AI is reshaping the financial landscape and what it means for investors, businesses, and policymakers.

Our goal is to bridge the gap between technical innovation and practical application. While AI technologies such as predictive analytics, natural language processing, and neural networks are revolutionizing financial modeling, their implications go far beyond technology. They influence market behavior, risk assessment, regulatory frameworks, and even ethical considerations in decision-making. This book explores these multidimensional impacts with clarity and depth, making it accessible to finance professionals, students, researchers, and curious readers alike.

We have drawn upon real-world case studies, emerging trends, and scholarly insights to present a balanced narrative of opportunities and challenges. Readers will discover how AI enables more efficient trading strategies, enhances fraud detection, improves credit scoring, and fosters data-driven investment planning. At the same time, we emphasize the importance of transparency, accountability, and human oversight in an increasingly automated financial world.

As you embark on this journey through the chapters, we invite you to think critically about the future of finance—one where human intuition and machine intelligence must work hand in hand. It is our hope that this book serves as both a guide and a catalyst for informed decision-making in the age of AI.

Acknowledgement

The journey of creating AI-Driven Finance: The Future of Investment and Decision-Making has been both intellectually stimulating and personally rewarding. This book is the result of countless hours of research, discussion, and reflection, and it would not have been possible without the invaluable contributions of many individuals and institutions.

First and foremost, we express our deepest gratitude to the global community of researchers, data scientists, and financial experts whose groundbreaking work in artificial intelligence and finance laid the foundation for this book. Their pioneering ideas inspired us to explore the intersection of technology and financial decision-making with renewed curiosity and purpose.

We also wish to thank our mentors, colleagues, and academic peers who offered constructive feedback, engaged in rigorous debates, and guided us through critical stages of this work. Their insights sharpened our understanding and strengthened the arguments presented in this volume.

Our appreciation goes to the practitioners and industry leaders who generously shared their real-world experiences and case studies. Their perspectives helped bridge the gap between theory and practice, ensuring that this book remains relevant to both scholars and professionals.

We owe a special thanks to our families and friends for their unwavering support and encouragement throughout this endeavor. Their patience during long hours of writing and research provided us with the strength to see this project through to completion.

Finally, we are grateful to our readers, whose curiosity about the future of finance motivates us to continue exploring this rapidly evolving field. We hope this book sparks meaningful discussions and contributes to shaping a more intelligent, data-driven financial future.

Dr. Supriya Agrawal
Dr. Anupam Jain
Dr. Himanshu Kushwaha
Ananya Swain
Pramit Chandra Rout

About the Book

In a world where financial markets evolve at lightning speed, *AI-Driven Finance: The Future of Investment and Decision-Making* explores the revolutionary impact of artificial intelligence on the global financial ecosystem. This book serves as a comprehensive guide for investors, professionals, researchers, and students eager to understand how AI is reshaping the way we analyze data, predict trends, and make decisions in the complex world of finance.

Through clear explanations and real-world examples, the book delves into the key applications of AI in finance — from algorithmic trading and robo-advisory services to risk assessment, credit scoring, and fraud detection. It uncovers how machine learning models process massive amounts of data to generate actionable insights, enabling faster and more accurate decision-making than ever before.

The book also addresses the challenges and ethical considerations of AI-driven finance, including issues of data privacy, algorithmic bias, market transparency, and regulatory compliance. By examining both the opportunities and risks, it encourages readers to think critically about the future of financial innovation and its implications for society.

Written in an accessible style, this book bridges the gap between technical expertise and practical application. Whether you are an experienced finance professional seeking to integrate AI into your strategies, a technology enthusiast exploring financial innovation, or a student preparing for the future of work, *AI-Driven Finance* equips you with the knowledge to navigate the intersection of technology and finance with confidence.

This is more than just a book — it is a roadmap to the future of investment and decision-making, where human intuition meets machine intelligence to create a smarter, more efficient financial world.

About the Authors

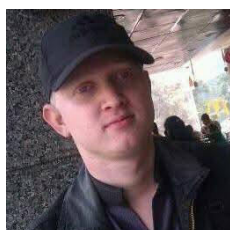


Dr. Supriya Agrawal is a Ph.D. in Management with over 14 years of experience across academia and the financial services industry. She specializes in financial markets and investments, blending academic expertise with practical insights to mentor management graduates. Currently a Faculty of Finance at Amity Business School, Amity University Lucknow, she also offers research consultancy and is a SEBI-registered Securities Market Trainer. Recognized for her work in advancing financial literacy, she has received multiple awards. Dr. Agrawal began her career in the corporate sector as a Senior Executive at SBI Life Insurance, Mumbai, gaining valuable industry exposure. Since 2014, she has been shaping careers in finance and general management through teaching, research, and placement guidance. An active researcher, she has published extensively in Scopus and Web of Science. With her rich industry-academia experience and passion for financial education, she continues to make a meaningful impact on students, professionals, and the wider community.



Dr. Anupam Jain is an Associate Professor of Accounting and Finance with over 24 years of academic and industry experience. He is currently associated with Amity University, Rajasthan, Jaipur. Dr. Jain holds a Ph.D. in Commerce, along with M.Com (Gold Medallist), MBA (Finance), M.Sc. (IT), and a Diploma in Export Management, showcasing his strong academic background. He has authored and published 14 books on subjects like Accounting, CSR, Entrepreneurship, and Waste Management, and holds multiple patents on innovative business and technological solutions. With a prolific research profile, Dr. Jain has published 30+ research papers in UGC Care and Scopus indexed journals, covering topics such as E-commerce, CSR,

Banking, Financial Reporting, and Waste Management. He has presented numerous papers in national and international conferences, including abroad, and received awards like Outstanding Academician Award (2024) and an ICSSR Research Grant. He is also a lifetime member of prominent research and academic bodies like Indian Accounting Association (IAA), ISTD, IRA, and I2OR, actively contributing to academic and professional communities.



Dr. Himanshu Kushwaha is an Assistant Professor & Head of Commerce at Malda College, Malda, West Bengal, affiliated with the University of Gour Banga. He earned his B.Com., M.Com., and Ph.D. in Commerce from the University of Allahabad. He also completed the Integrated Professional Competence Course (IPCC) from the Institute of Chartered Accountants of India and holds an MBA with specialization in HR & Marketing from Swami Vivekanand Subharti University. A UGC-JRF awardee, Dr. Kushwaha specializes in Financial Management, Direct Tax, Cost Accounting, Management Accounting, and Human Resource Management. He has published extensively in international and CARE-listed journals and edited volumes. He has also presented papers in over fifteen national and international conferences, receiving recognition for Best Paper, and has attended numerous workshops, including ICSSR-sponsored programs. He strongly believes in blending academic research with practical insights to inspire future generations. His work reflects a commitment to fostering sustainable and inclusive growth through commerce and management education.



Ananya Swain is an Assistant Professor specializing in Economics and Finance at ASTHA School of Management. She is currently pursuing her Ph.D. in Economics at KIIT Deemed-to be-University. She has completed her Graduation in B.A. Economics and Postgraduation in M.A. Economics from Ravenshaw University. She has also completed her MBA in Finance from Maharaja Agrasen Himalayan Garhwal University, equipping herself with a multidisciplinary understanding of finance and economic systems. Before joining ASTHA, Ananya taught B.Tech students at KIIT University, where she was recognized for her dynamic teaching approach that effectively integrates theoretical concepts with practical applications. Her teaching philosophy focuses on creating engaging courses that bridge the gap between textbook and real-world scenarios. She employs tangible examples to help students master case study analyses and apply practical solutions systematically. Her exceptional communication skills have made her a standout faculty member, fostering an environment of clarity and enthusiasm among her students.

Ananya's research interests include Health Economics, Digital Economics, Monetary Economics, Econometrics, and Political Economics. She has made notable contributions as a Research Assistant on an ICSSR-funded project. In February 2023, her paper titled "Evaluation of the generic medicine in the state of Odisha: An exploration of 'Pradhan Mantri Bharatiya Janaushadhi Pariyojana (PMBJP)' in the twin-city of Odisha" was recognized as one of the top ten papers out of 200 at a Research Symposium, earning her awards for Best Paper and Best Poster Presentation. Her interpersonal skills and collaborative spirit have made her a valued colleague in academic circles and an

inspirational figure for students. Beyond academia, Ananya has presented her research work in many institute of repute like IIT Madras, IIT Bhubaneswar, MET Institute of Management and so on. She has also authored herself in multiple peer-reviewed and UGC-Care journals articles. She is also a Lifetime Member of Odisha Economic Association



Pramit Chandra Rout is a distinguished legal scholar, researcher, and author, currently serving as an Assistant Professor at ASTHA School of Management, Bhubaneswar. With a strong academic foundation in Corporate and Commercial Law, finance, and business analytics, he has dedicated his career to exploring the intersection of law, technology, and economic policy. His research primarily focuses on the legal and economic dimensions of artificial intelligence (AI), intellectual property law, corporate governance, and financial regulations, reflecting his commitment to advancing scholarship in emerging regulatory paradigms.

Pramit holds a Bachelor of Laws (B.A. LL.B. Hons.) from Utkal University, followed by a Master of Laws (LL.M.) with a specialization in Corporate and Commercial Law from KIIT School of Law. Expanding his expertise beyond legal studies, he pursued an MBA in Finance from Maharaja Agrasen Himalayan Garhwal University, equipping himself with a multidisciplinary understanding of financial law and economic systems. Currently, he is pursuing a Ph.D. in Law at Siksha ‘O’ Anusadhan Deemed to be University, where his research delves into AI-driven decision-making in corporate governance, offering critical insights into policy frameworks, regulatory mechanisms, and the evolving legal landscape in the digital age.

An avid researcher, Pramit has authored multiple peer-reviewed journal articles, book chapters, and policy papers, analysing key issues in competition law, financial

regulations, and AI governance. He has also authored a book on Indigenization of the Defence Industry in India, contributing valuable perspectives on trade law and regulatory policies. His research engagements include serving as a Research Assistant at IIT Kharagpur and KIIT School of Law, where he worked on projects related to justice administration, financial inclusivity, and socio-economic policy development.

Beyond academia, Pramit has undertaken advanced certifications in AI & Law, Legal Tech, Business Intelligence, and Data Analytics, further reinforcing his expertise in technology-driven legal frameworks. His intellectual pursuits continue to shape contemporary legal discourse, particularly in the realm of AI's transformative role in global industries, bridging regulatory, economic, and technological insights to address the challenges of a rapidly evolving digital economy.

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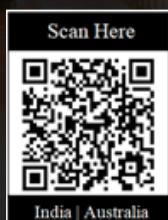
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