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## Mémoire de Fin d'étude

Pour l'obtention du diplôme d'ingénieur d'état

Filière : **Informatique**

Spécialité : **System d'Information et Web (SIW)**

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### MUTUAL FUND PORTFOLIO MANAGEMENT USING BLOCKCHAIN TECHNOLOGY

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# Dedications

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“We dedicate this work:

To our parents, for their unwavering love and support throughout our academic journey.

To our mentor, for his guidance and wisdom in shaping our research.

To our friends and family, for their encouragement and understanding during the many late nights and long weekends spent working on this report.

To the individuals and communities who participated in my research, for sharing their time and experiences with us.

To the faculty and staff of the ESI SBA, for their dedication to teaching and mentoring.

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# Abstract

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This master's thesis focuses on the transformation of the mutual funds system from its traditional approach to a more advanced fintech-driven model, ultimately exploring the potential integration of blockchain technology. The research examines the limitations of the traditional mutual funds system, including high costs, inefficiency, and centralized management. It investigates the role of fintech in enhancing various aspects of mutual fund operations, such as investor onboarding, transaction processing, portfolio management, and compliance activities. Additionally, the study explores the benefits and challenges associated with implementing blockchain technology in the mutual fund industry. It analyzes how blockchain can improve transparency, security, and operational efficiency while considering the regulatory and governance implications. Through a thorough analysis of literature, case studies, and industry practices, this master's thesis provides valuable insights into the evolution of mutual funds, starting with fintech advancements and potentially leading to the adoption of disruptive blockchain technology.