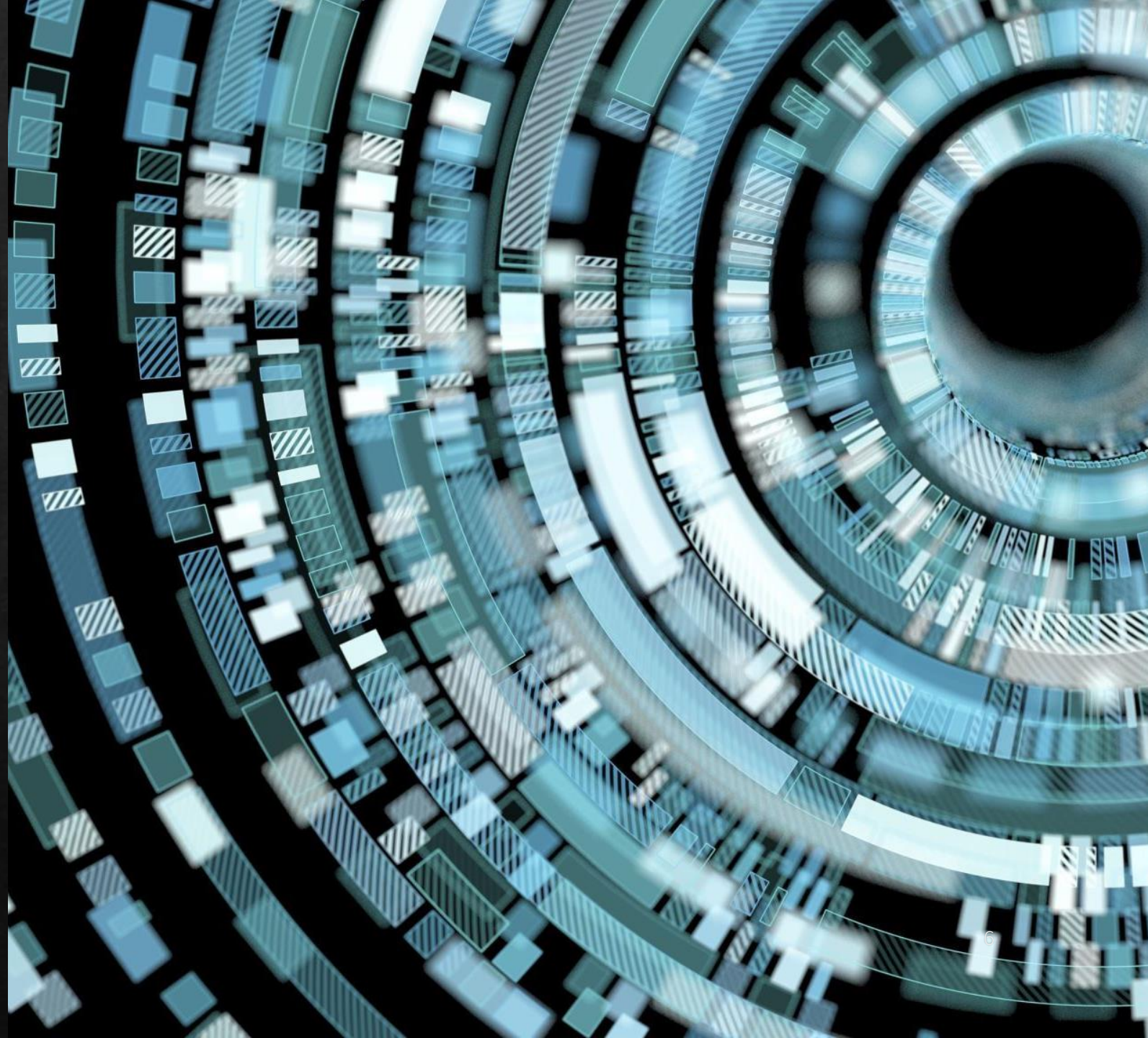
An Accelerated Method for Protecting Data Privacy in Financial Scenarios Based on Linear Operation - presented by Shadman Ahmad

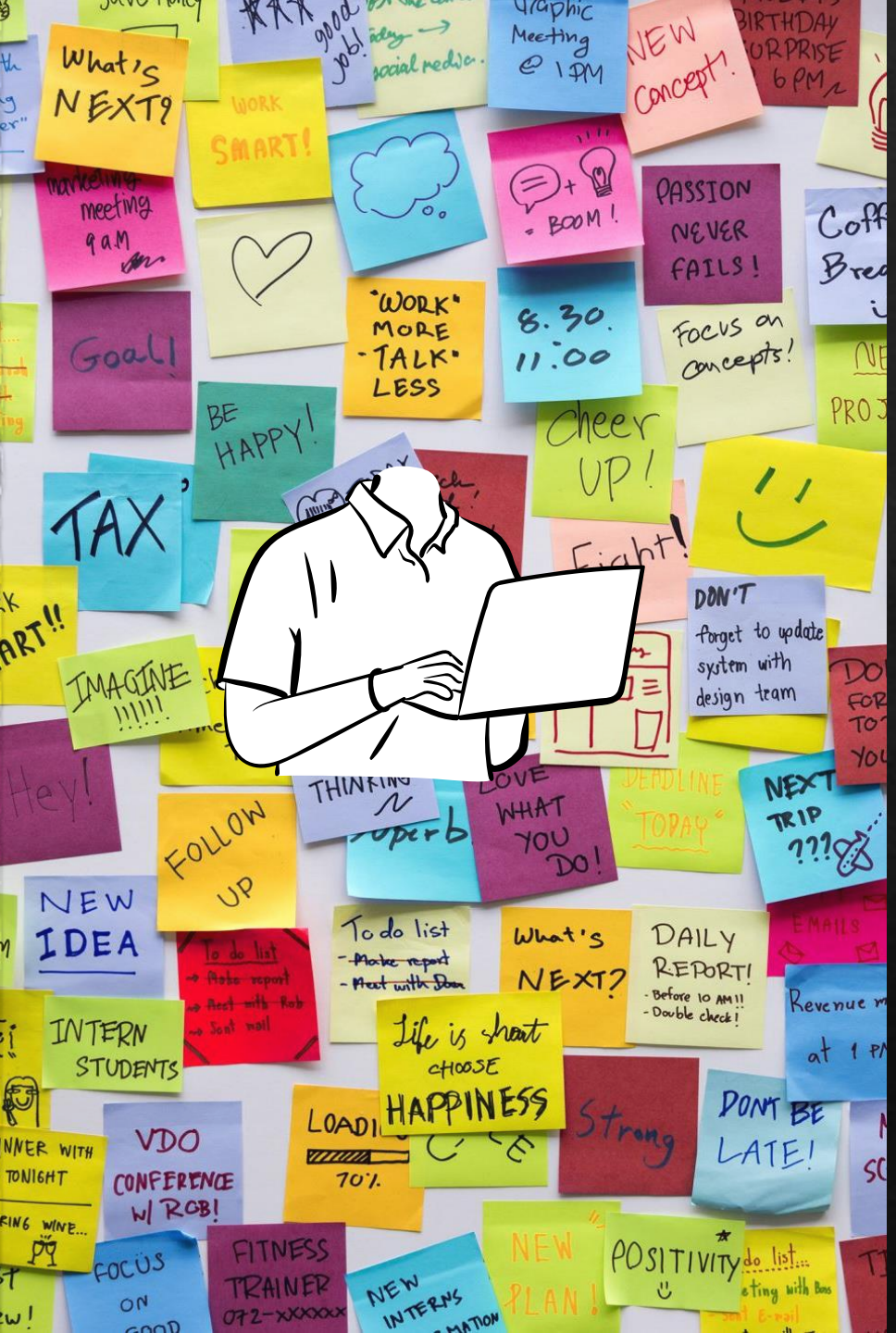
Short Summary

- A privacy protection model for financial data using cloud computing and linear operations
- The model provides four levels of privacy protections



Motivation

- Addressing the challenges of data security and privacy in financial scenarios



Contribution

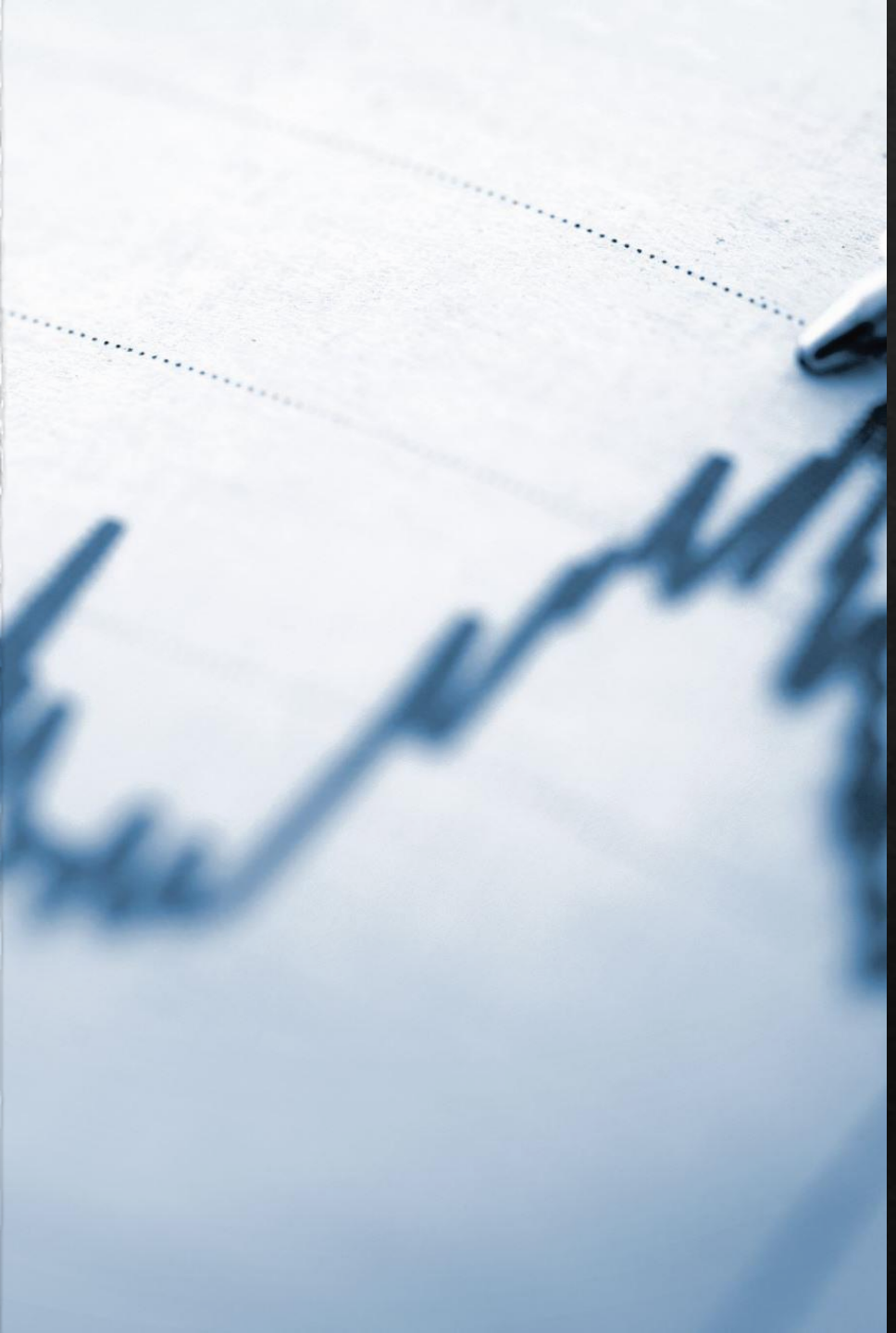
- A novel computing framework for data privacy, validated by experiments on different inference models and datasets

Methodology

- Privacy protection model
- Scalar multiplication method
- Monte Carlo under linear model

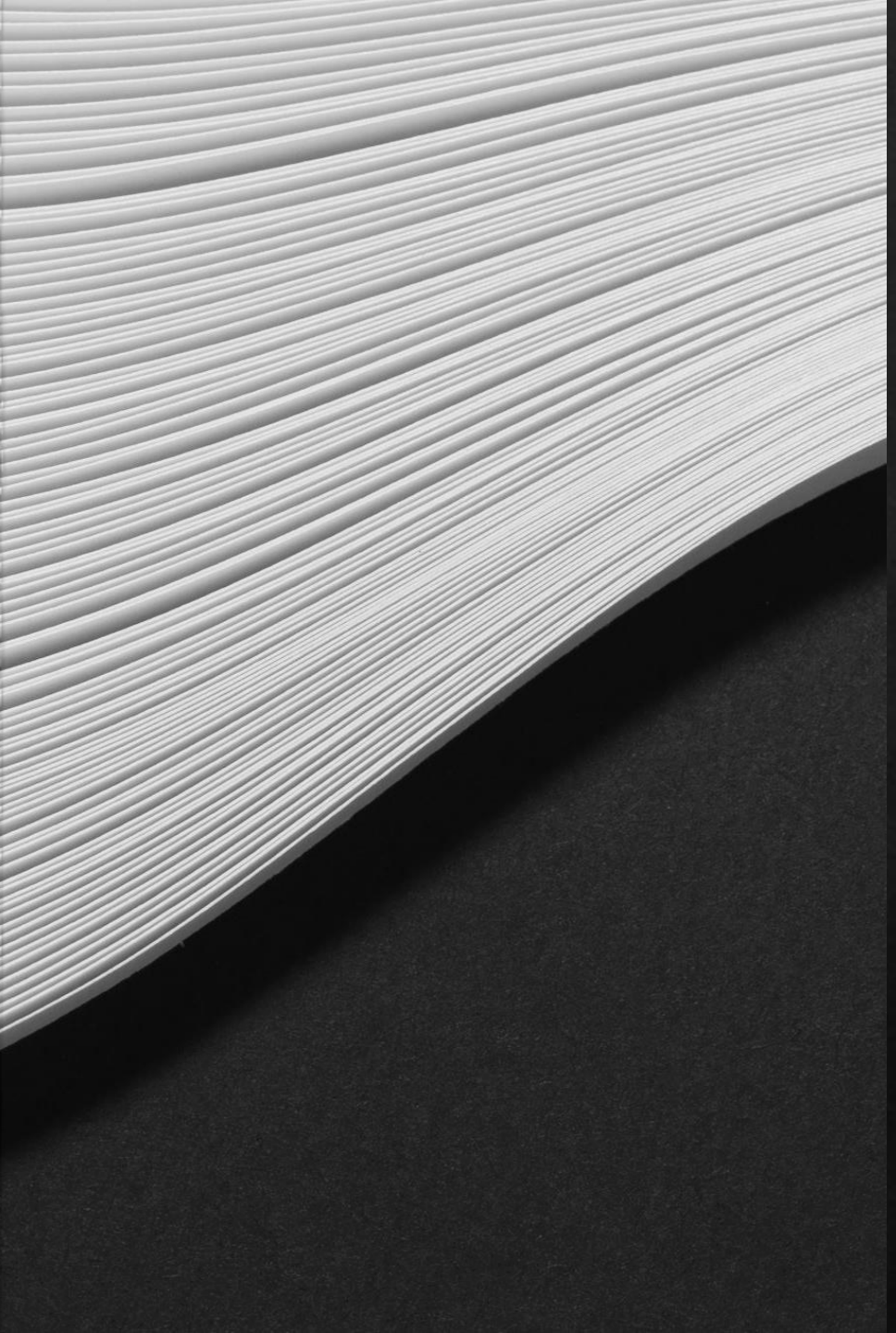
Conclusion

- The model can increase speed by 10 times and effectively prevent data leakage and user identity exposure



Limitations

- The model requires communication for non-linear operations, introducing latency and bandwidth overhead
- The model relies on the mathematical property of linear operators, limiting its applicability to some financial scenarios



Synthesis

- The paper proposes a novel solution for protecting data privacy in financial scenarios, demonstrating its applicability and superiority over existing methods
- It also discusses the limitations and challenges of the proposed method and suggests possible directions for future work