



SHIELDED.AI



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Faisal Alabdulkareem
Information systems

Hussam Alshehri
Actuarial Sciences

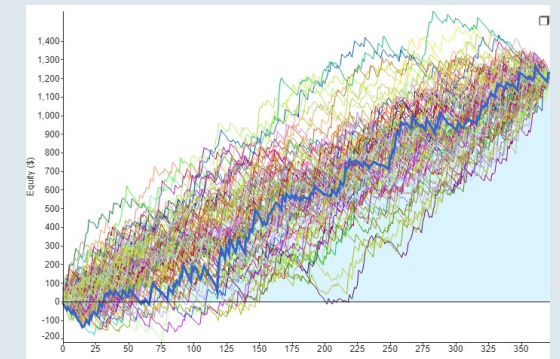
Financial Risk Modeling

Financial Risk Modeling?

Financial risk modeling is the use of formal mathematical and econometric techniques to measure, monitor and control the Financial risk.



Fields of practice



Fields of practice

Car Insurance



How prices are determined?

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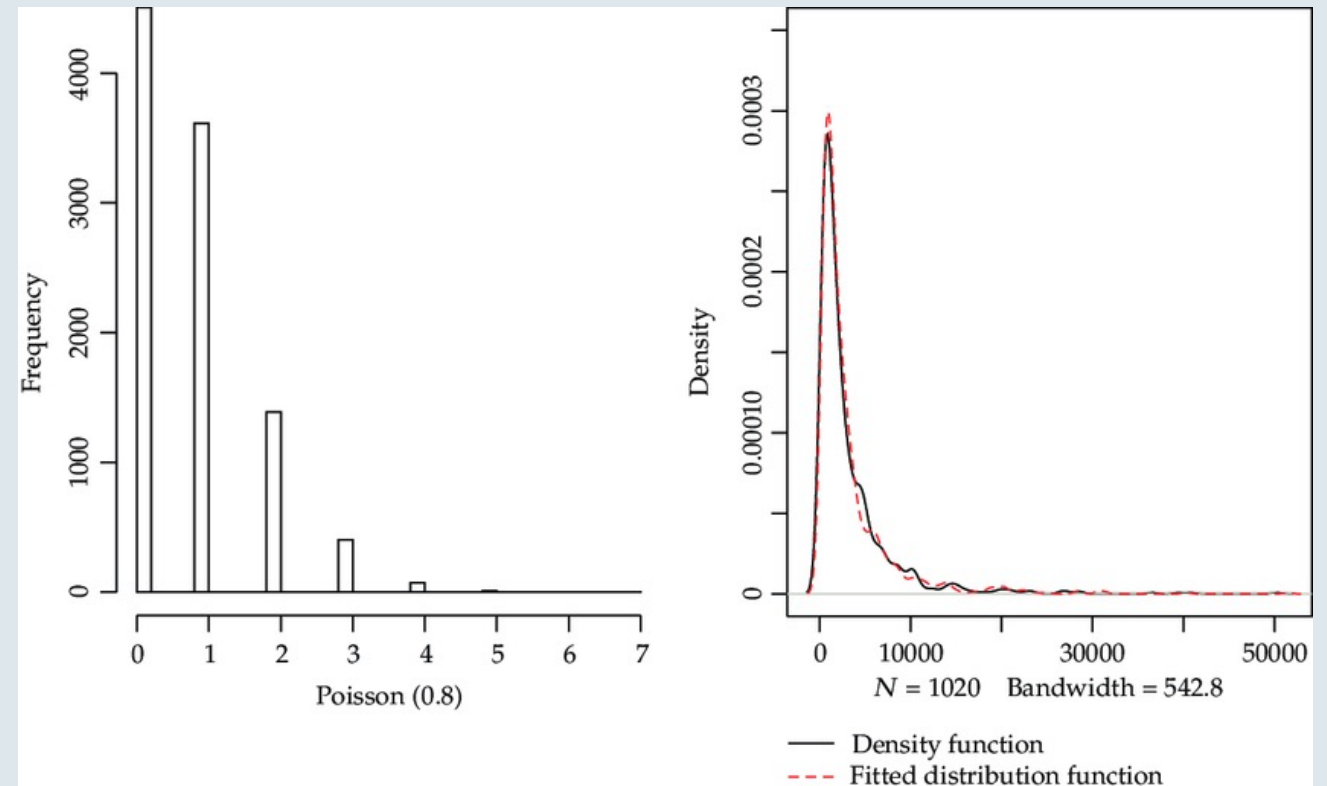
$$\text{Price} = \text{Cost} + \text{profit}$$

Cost Accounting



How prices are determined?

Collective risk theory



Our Project

Our Project

- Machine Learning

- Quantum Encryption Methods



SHIELDED.AI

Machine Learning



Insurance Claims Data



Driving.csv

Regression Problem

Gradient Boosted Regression Algorithm

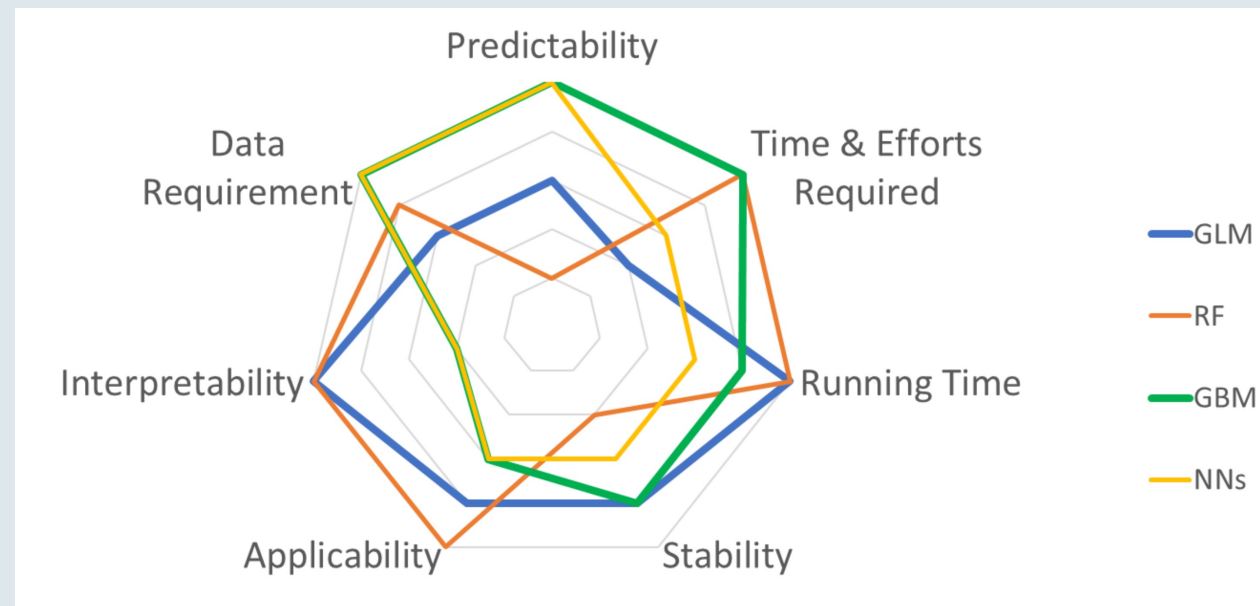
GBR

Machine Learning

Regression Problem

Gradient Boosted Regression Algorithm

GBR



Future Security Threats



Encryption



Decryption

Quantum Encryption Methods

Quantum Key Distribution Encryption (QKD)

- Is a secure advanced way to exchange a secret key,
It exploits quantum methods in Quantum Computers



Quantum Channel



Quantum Encryption Methods

Quantum Key Distribution Encryption (QKD)

- Is a secure advanced way to exchange a secret key,
It exploits quantum methods in Quantum Computers



Ahmed



Symmetric



Quantum Channel



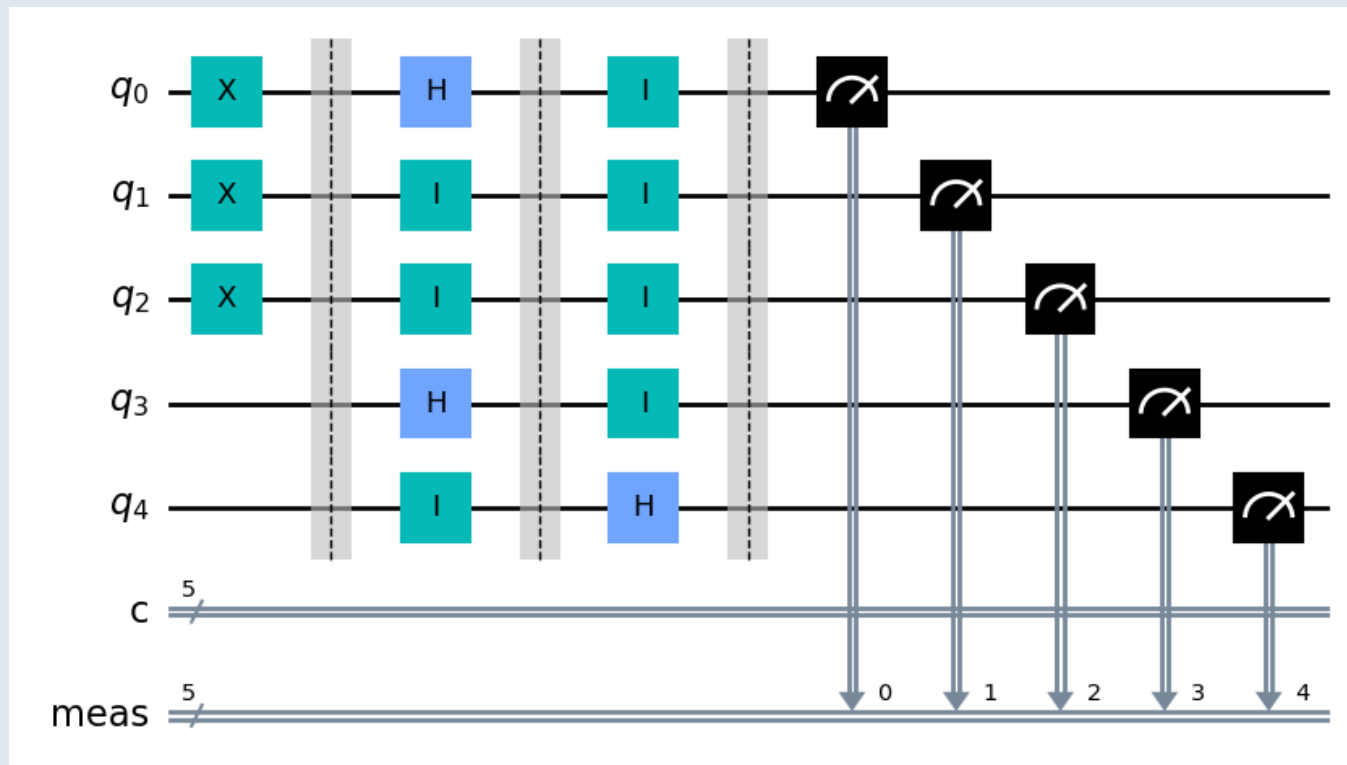
Khaled



Symmetric

Quantum Encryption Methods

Quantum Key Distribution Encryption (QKD)



TEST

SHIELDED.AI Is aimed for?



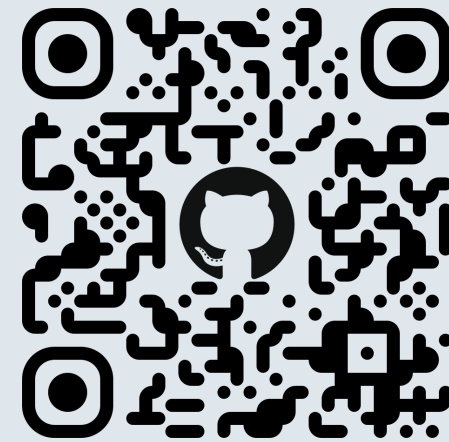
Researchers

Risk Analysts

Software Developers

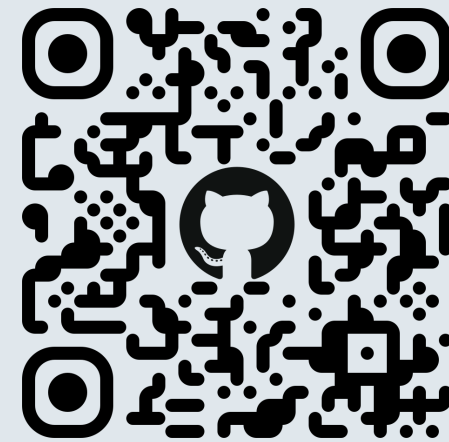
Conclusion

Special Thanks !



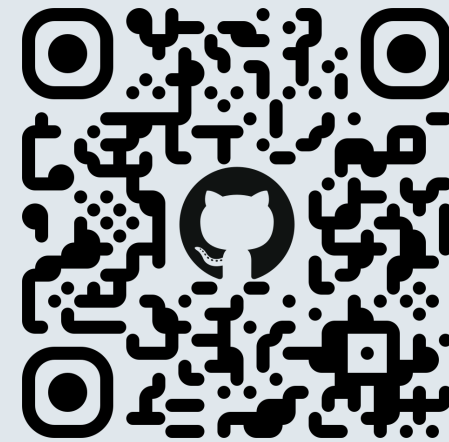
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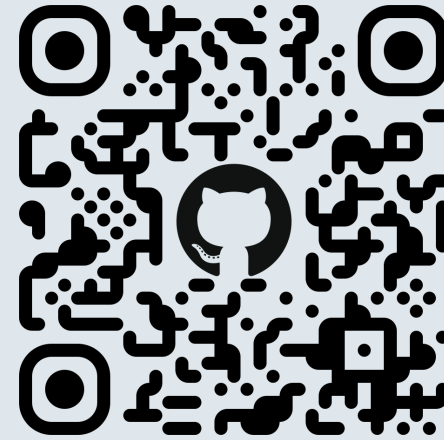
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