

Prototype: Double Spending Attack Simulation



Project Instructor: Fouzia Jumani

Skype: fouziajumani

Email: fouziajumani@vu.edu.pk

Project Author: Eng. Muhammad Imtiaz Shaffi

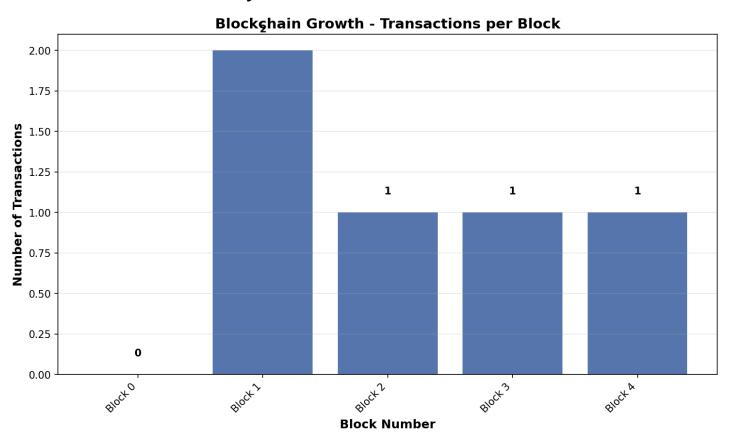
VU ID: BC220200917

Email: bc220200917mis@vu.edu.pk

Comprehensive Blockchain Analytics Report

This report contains detailed analytics and visualizations of the blockchain network, including transaction patterns, mining statistics, and double-spending attack simulations.

1. Blockchain Growth Analysis





Prototype: Double Spending Attack Simulation



Project Instructor: Fouzia Jumani

Skype: fouziajumani

Email: fouziajumani@vu.edu.pk

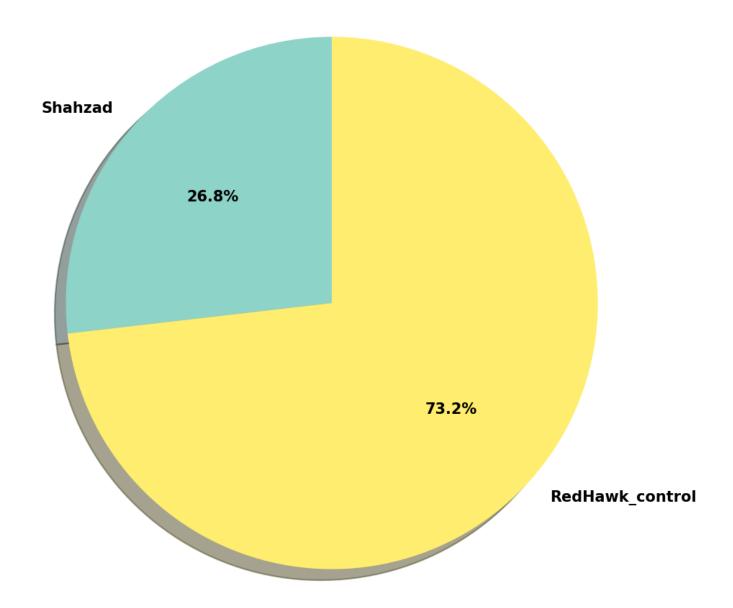
Project Author: Eng. Muhammad Imtiaz Shaffi

VU ID: BC220200917

Email: bc220200917mis@vu.edu.pk

2. Wallet Balance Distribution

Wallet Balance Distribution (Positive Balances Only)





Prototype: Double Spending Attack Simulation



Project Instructor: Fouzia Jumani

Skype: fouziajumani

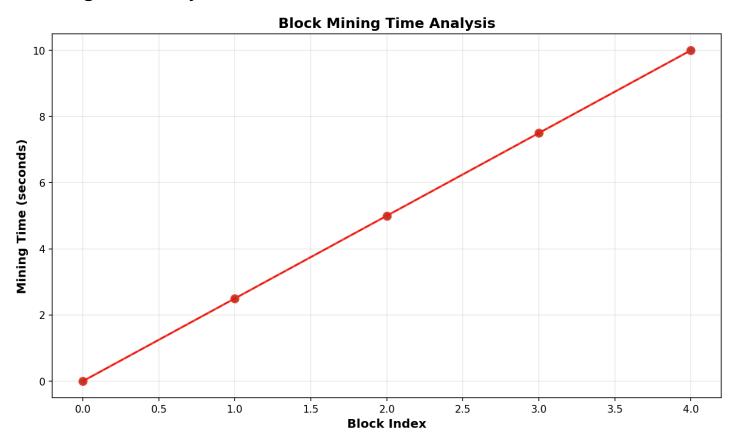
Email: fouziajumani@vu.edu.pk

Project Author: Eng. Muhammad Imtiaz Shaffi

VU ID: BC220200917

Email: bc220200917mis@vu.edu.pk

3. Mining Time Analysis





Prototype: Double Spending Attack Simulation



Project Instructor: Fouzia Jumani

Skype: fouziajumani

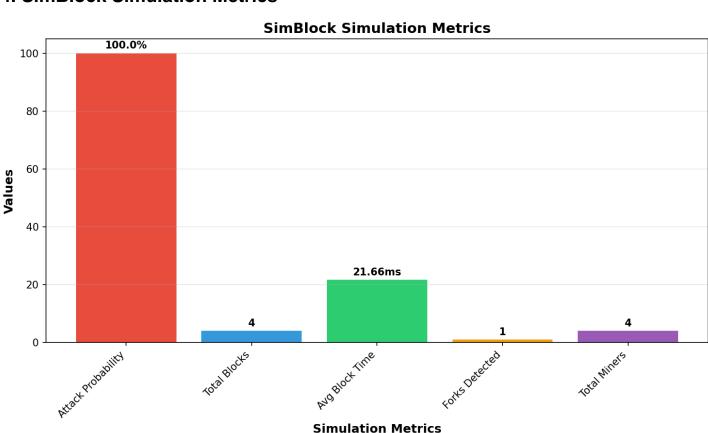
Email: fouziajumani@vu.edu.pk

Project Author: Eng. Muhammad Imtiaz Shaffi

VU ID: BC220200917

Email: bc220200917mis@vu.edu.pk

4. SimBlock Simulation Metrics



5. Honest vs Attacker Blocks



Prototype: Double Spending Attack Simulation



Project Instructor: Fouzia Jumani

Skype: fouziajumani

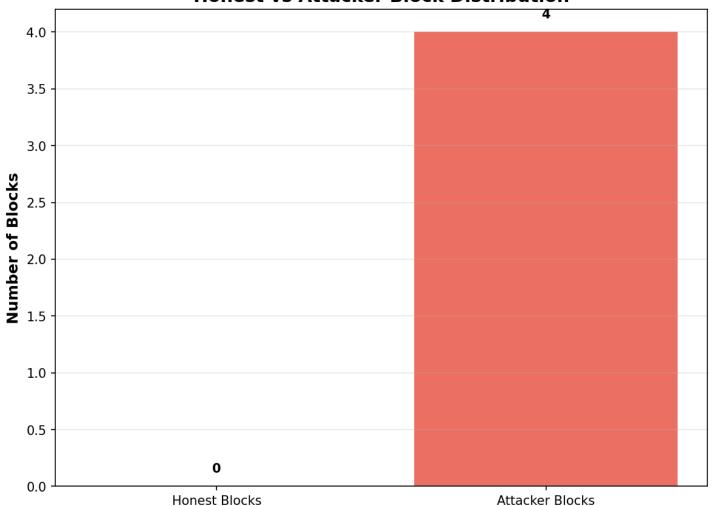
Email: fouziajumani@vu.edu.pk

Project Author: Eng. Muhammad Imtiaz Shaffi

VU ID: BC220200917

Email: bc220200917mis@vu.edu.pk

Honest vs Attacker Block Distribution





Prototype: Double Spending Attack Simulation



Project Instructor: Fouzia Jumani

Skype: fouziajumani

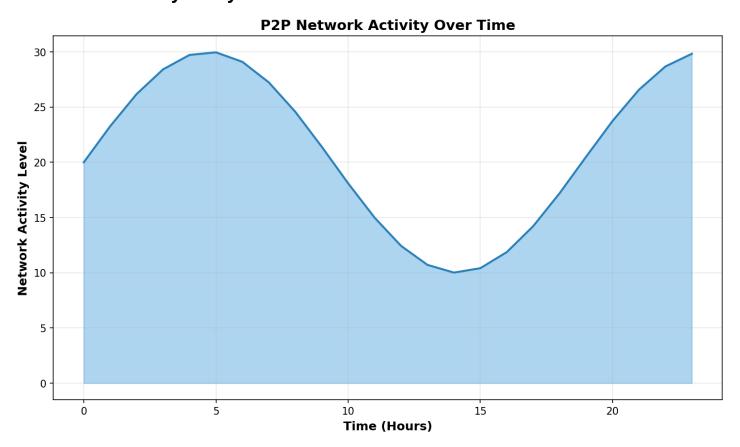
Email: fouziajumani@vu.edu.pk

Project Author: Eng. Muhammad Imtiaz Shaffi

VU ID: BC220200917

Email: bc220200917mis@vu.edu.pk

6. Network Activity Analysis





Prototype: Double Spending Attack Simulation



Project Instructor: Fouzia Jumani

Skype: fouziajumani

Email: fouziajumani@vu.edu.pk

Project Author: Eng. Muhammad Imtiaz Shaffi

VU ID: BC220200917

Email: bc220200917mis@vu.edu.pk

Double Spending Attack Results

Attack Configuration

Attacker: RedHawk

Private Blocks Mined: 1

Amount: 10.0 coins

Hash Power: 100%

Success Probability: 100%

Attack Results

Attack Outcome: FAILED



Prototype: Double Spending Attack Simulation



Project Instructor: Fouzia Jumani

Skype: fouziajumani

Email: fouziajumani@vu.edu.pk

Project Author: Eng. Muhammad Imtiaz Shaffi

VU ID: BC220200917

Email: bc220200917mis@vu.edu.pk

Detailed Statistics

Blockchain Statistics

Key	Value
Total Blocks	5
Total Transactions	5
Pending Transactions	12
Current Difficulty	3
Connected Peers	1

SimBlock Simulation Summary

Key	Value
Attack Conclusion	Attack Successful!
Attack Successful	Yes
Attack Probability	100.00%
Total Blocks	4
Avg Block Time	21.66 ms
Forks Detected	1
Total Miners	4