

PHISHNET

Measuring the Effectiveness of Phishing Awareness Training

TEAM MEMBERS: CARLOS REY, DEVIN GILES, SAMUEL CASTELLANOS, AHSAN SANDERS

OVERVIEW / PROBLEM

Phishing remains one of the most effective cybersecurity threats because it targets human behavior rather than technical vulnerabilities. Despite existing defenses, many users continue to fall for phishing attacks, highlighting the need for effective awareness training.

OBJECTIVE

This project evaluates phishing awareness by analyzing simulated data and visualizing how training impacts user susceptibility to phishing attacks.

METHODOLOGY

- Backend-driven and research-based phishing data
- Trained vs untrained users
- Metrics:
 - Failure rate
 - Training improvement
- No real phishing activity conducted

ETHICS NOTE

No real phishing campaigns were conducted. All data used in this project is simulated or based on publicly available research.

RESULTS

Results show that trained users have significantly lower phishing failure rates compared to untrained users, demonstrating the effectiveness of awareness training.

PHISHING FAILURE RATE COMPARISON

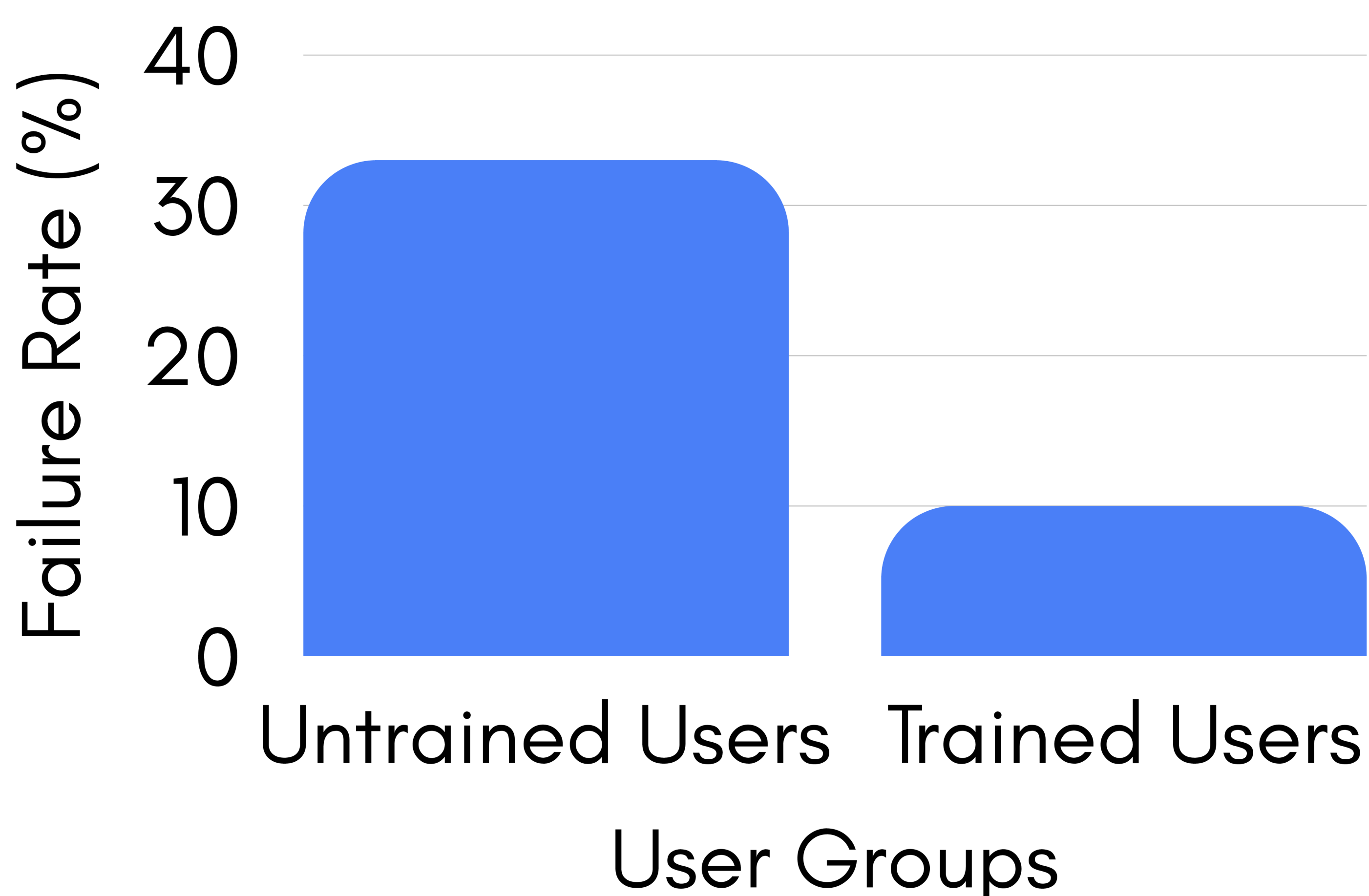


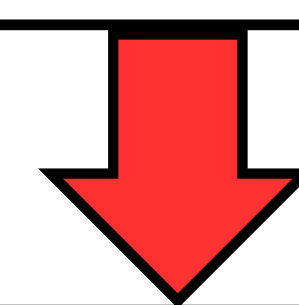
Figure 1: Comparison of phishing failure rates between trained and untrained users

SYSTEM DESIGN

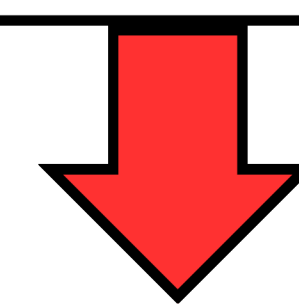
- Backend-driven phishing simulation data via API
- Backend calculates phishing metrics
- Dashboard visualizes results
- Evaluation compares outcomes

SYSTEM ARCHITECTURE

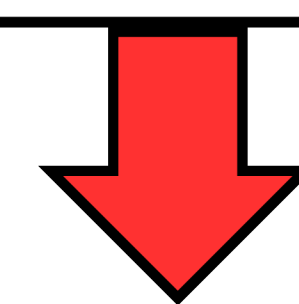
Simulated & Research Data



Backend Processing
(Failure rate, metrics)



Visualization Dashboard
(Charts & Comparisons)



Evaluation Results
(Training effectiveness)

The system integrates a FastAPI backend with a web-based dashboard to display phishing metrics in real time.

Figure 2: PhishNet system architecture and data flow

CONCLUSION

This project highlights the importance of user education as a critical component of cybersecurity defense strategies.

KEY TAKEAWAYS

Phishing awareness training **significantly reduces** user susceptibility to attacks.