



PRACTICAL CONSEQUENCES AND CHALLENGES OF USING ARTIFICIAL INTELLIGENCE IN SECURITY

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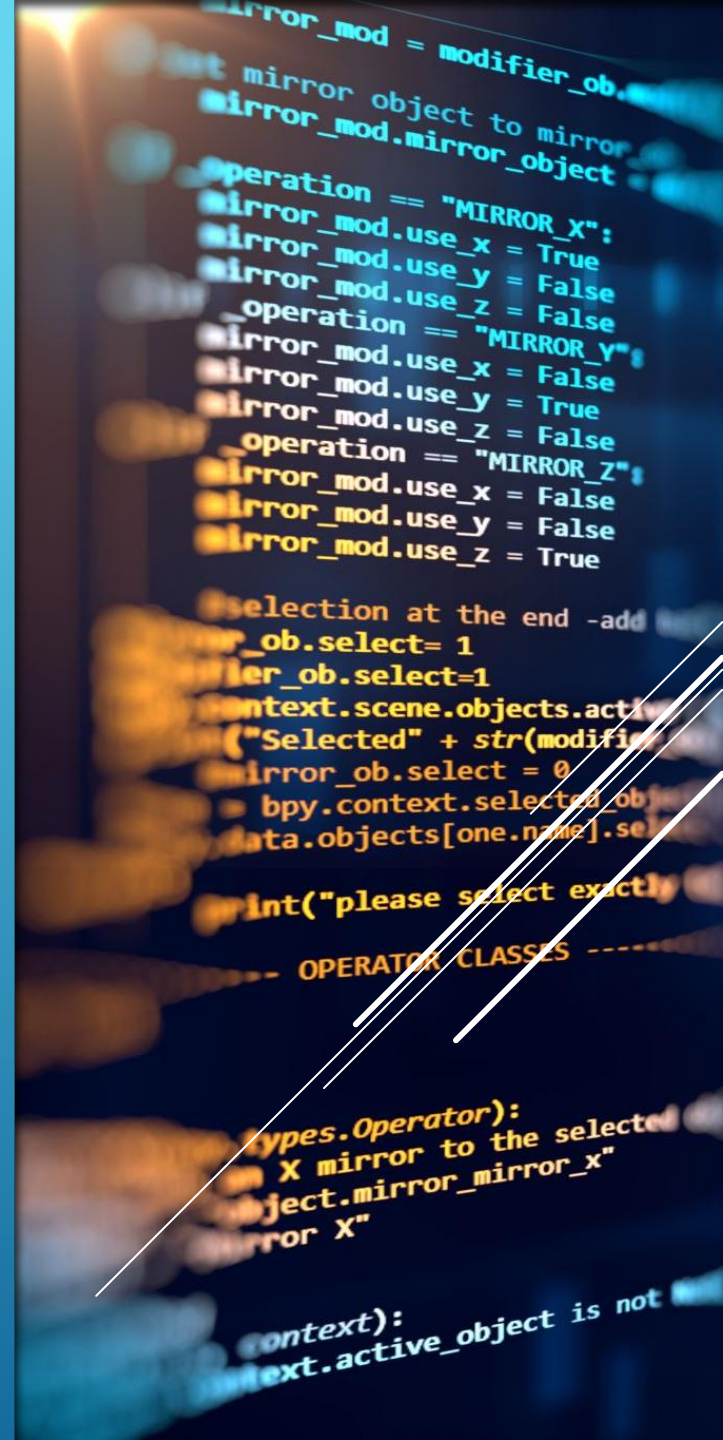
UiS IT – CTO & System Architect

- ▶ • Brief introduction to AI in higher education.
- ▶ • Importance of understanding the security implications.

OVERVIEW

- ▶ • AI's role in identifying and preventing data breaches.
- ▶ • AI's role as a tool for attackers.

DATA BREACHES AND CYBER ATTACKS



- ▶• Overview of how AI is used by both defenders and attackers.
- ▶• Examples of Good AI: AI in threat detection and response, network monitoring, predictive analytics.
- ▶• Examples of Bad AI: AI in phishing, malware distribution, deepfakes.
- ▶• Strategies for Security Personnel: Adopting AI tools, training, collaboration with AI researchers.

GOOD AI VS. BAD AI



- ▶ • How AI enhances phishing attacks.
- ▶ • Strategies for mitigating AI-driven social engineering.

AI-DRIVEN PHISHING AND SOCIAL ENGINEERING



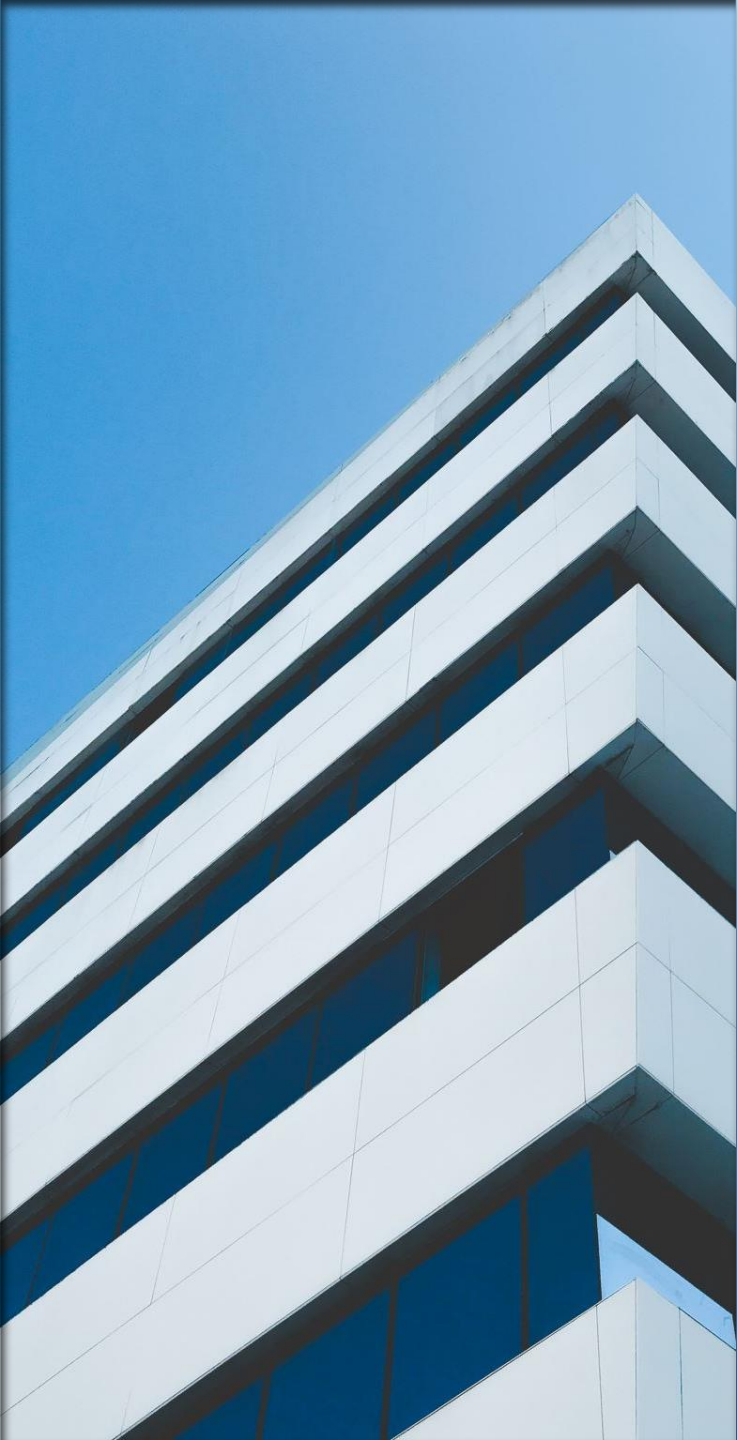


- Importance of safeguarding personal information.



- Role of encryption and access controls.

PROTECTING STUDENT AND FACULTY DATA



- ▶ • Use of AI for digital campus surveillance.
- ▶ • Privacy implications and ethical concerns.

AI AND SURVEILLANCE

- ▶ • Importance of transparency in AI applications.
- ▶ • Mechanisms for accountability in AI deployment.

ENSURING TRANSPARENCY AND ACCOUNTABILITY



- ▶ • Multi-factor authentication, encryption, and regular audits.
- ▶ • Training for IT staff and end-users.

IMPLEMENTING ROBUST SECURITY MEASURES



- Developing and adhering to ethical standards.



- Importance of stakeholder involvement.

ETHICAL GUIDELINES FOR AI USE



- Regular training sessions.



- Creating a culture of security awareness.

TRAINING AND AWARENESS FOR STUDENTS AND STAFF



- CRITERIA FOR ASSESSING THE TRUSTWORTHINESS OF AI VENDORS.



- IMPORTANCE OF VENDOR TRANSPARENCY AND COMPLIANCE WITH REGULATIONS.

EVALUATING AI VENDORS



- POTENTIAL RISKS OF DATA EXFILTRATION BY VENDORS.



- EXAMPLES OF VENDOR-RELATED SECURITY BREACHES.

RISKS OF RELYING ON COMMERCIAL AI SERVICES

BEST PRACTICES FOR VENDOR MANAGEMENT

- ▶ • Conducting thorough risk assessments.
- ▶ • Establishing clear contracts and SLAs.



- ▶ • Summary of the main topics covered.
- ▶ • Importance of a proactive approach to AI security.

RECAP OF KEY POINTS

- ▶ • Emerging trends in AI and security.
- ▶ • Recommendations for staying ahead of potential threats.

FUTURE OUTLOOK AND RECOMMENDATIONS