June 1, 2024

**IDS 300W** 

## **Research Question**

What are the major ways artificial intelligence has been effective in preventing data breaches and minimizing threats?

## Table of Disciplinary Insights

Discipline	Insight of the Author
	"Artificial Intelligence enhances cybersecurity by
	identifying and responding to threats along the
	Cyber Kill Chain" (Chomiak-Orsa, Rot, & Blaicke,
Cybersecurity	2019, p. 35).
	"AI safety in cybersecurity requires understanding
	the historical timeline of AI failures to mitigate
	future risks" (Yampolskiy & Spellchecker, 2021, p.
Cybersecurity	102).
	"AI plays a crucial role in mitigating data breaches
	by quickly identifying vulnerabilities and reducing
Cybersecurity	response times" (Revill, 2021, p. 45).
	"The application of AI in healthcare data privacy
	ensures data is secure and breaches are prevented
Computer Science	using advanced algorithms" (Roy, 2020, p. 22).
	"Human factors significantly impact the integration
	of AI in cybersecurity, emphasizing the need for
	effective human-AI collaboration" (Mittu &
Computer Science	Lawless, 2019, p. 60).
Criminology	"Understanding AI's role in crime prevention is
	essential for criminologists to address the
	evolving nature of cybercrime" (Hayward &
	Maas, 2019, p. 141).

## References

- Chomiak-Orsa, I., Rot, A., & Blaicke, B. (2019). Artificial Intelligence in Cybersecurity: The Use of Al Along the Cyber Kill Chain. Journal of Cybersecurity Research and Practice.
- Hayward, K. J., & Maas, M. M. (2019). Artificial intelligence and crime: A primer for criminologists. Crime, Media, Culture, 17(2), 135-148.

- Mittu, R., & Lawless, W. F. (2019). Human Factors in Cybersecurity and the Role for Al. Journal of Human Factors in Cybersecurity.
- Revill, D. K. Jr. (2021). The Value of Artificial Intelligence When Mitigating Data Breaches. (Doctoral dissertation, Capitol Technology University). ProQuest Dissertations & Theses Global.
- Roy, S. (2020). Privacy Prevention of Healthcare Data Using Al. Journal of Data Analytics in Healthcare.
- Yampolskiy, R. V., & Spellchecker, M. S. (2021). Artificial Intelligence Safety and Cybersecurity: A Timeline of AI Failures. AI Safety Journal.