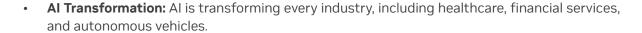


## **AI Transformation Across Industries**

Unit 1 - Summary



- **Al in Healthcare:** Al is revolutionizing drug discovery, medical devices, and enabling real-time analysis of cancer cells.
- Al in Finance: Banks are embedding Al into various of their services such as fraud detection, robo-advisors, and virtual financial advice.
- Al in Automotive: Automakers are using Al for design visualization, engineering simulation, and autonomous driving.
- **Generative AI:** Generative AI is revolutionizing the computer industry with its advanced capabilities in natural language processing, content creation, and multi-modal intelligence.

## How is AI transforming the healthcare industry?

Al is revolutionizing drug discovery and medical devices by:

- Modeling biological systems, studying diseases, and discovering drug targets.
- Using lab automation with sensors and robotics for high-throughput screening and drug formation.
- Implementing in silicon drug discovery with AI and computing for molecular generation, structure prediction, virtual screening, and predictive molecular dynamics.

## What are some examples of AI in financial services?

Al is transforming the financial sector by:

- Using robo-advisors powered by algorithms to select and manage investment portfolios.
- Implementing intelligent video analytics for threat detection and ATM security.
- Enhancing fraud detection accuracy with deep learning and enabling real-time notifications.

## How is AI being used in the automotive industry?

Al is being used in the automotive industry from design to self-driving cars by:

- Utilizing design visualization and engineering simulation.
- Creating industrial digital twins and virtual showrooms.
- Developing intelligent assistants and autonomous driving and parking systems.