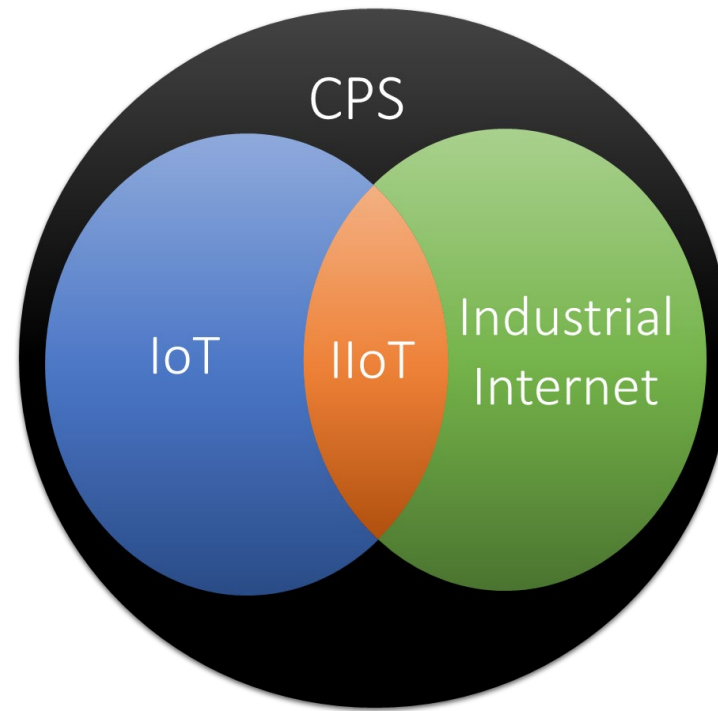


CHAPTER 1

Introduction

Conceptualization of Security, Forensics, and Privacy of
Internet of Things: An Artificial Intelligence perspective



CYBER-PHYSICAL INTERNET OF THINGS

SECURITY OF INTERNET OF THINGS

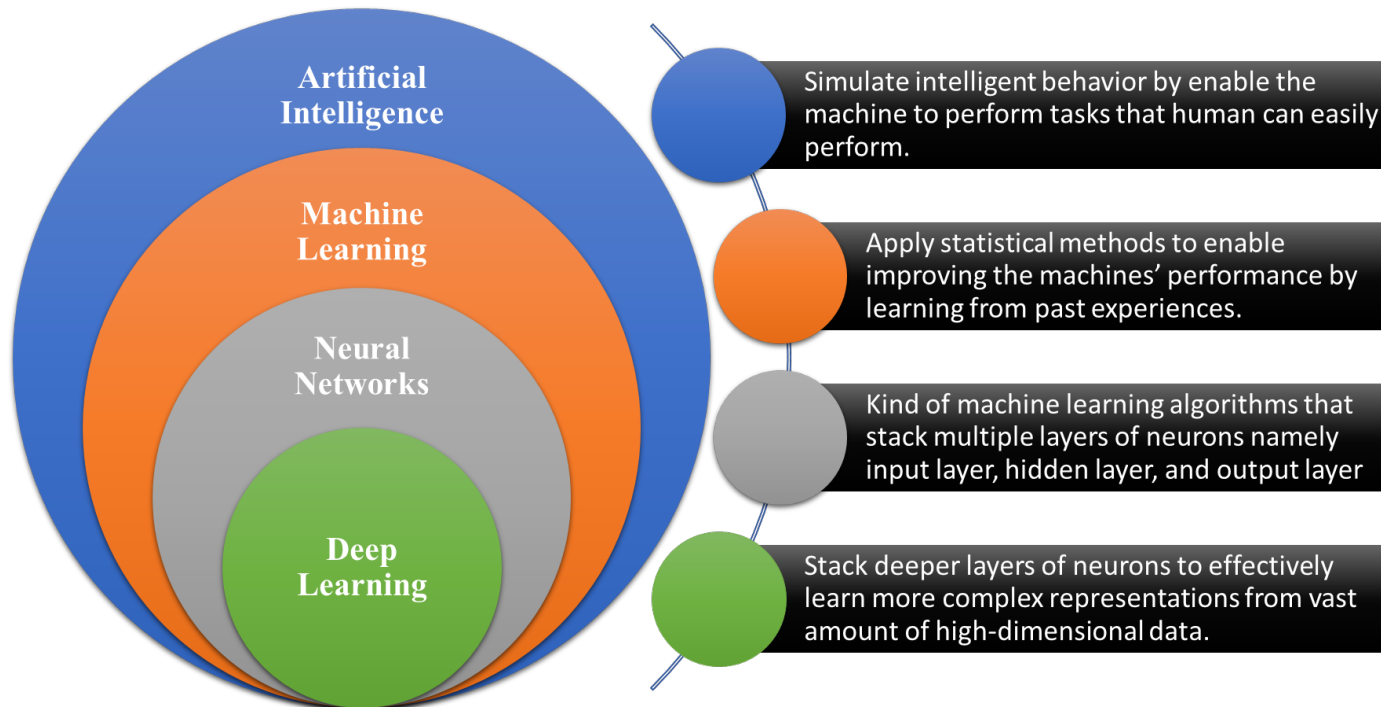
- misunderstanding between IoT security and conventional cybersecurity
- cybersecurity is generally identified as a technology pile of methods, protocols, and procedures to protect computing systems (software, application, services), network infrastructure, and data against malevolent attacks, intrusions, unauthorized access, and other categories of damage.

FORENSICS OF INTERNET OF THINGS

- Digital Forensics (DF) is considered as a part of the conventional forensics science that mainly considers the discovery and analysis of digital or computerized data.
- The Digital Forensics specialists deal with the recognition, compilation, retrieval, analysis, and maintenance of digital evidence discovered on a variety of electronic devices

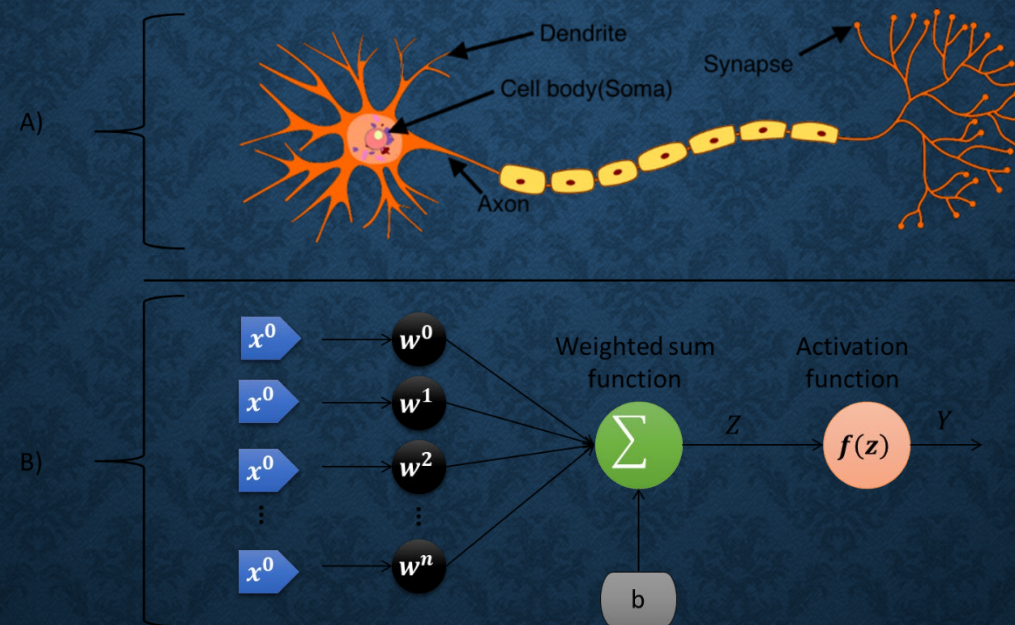
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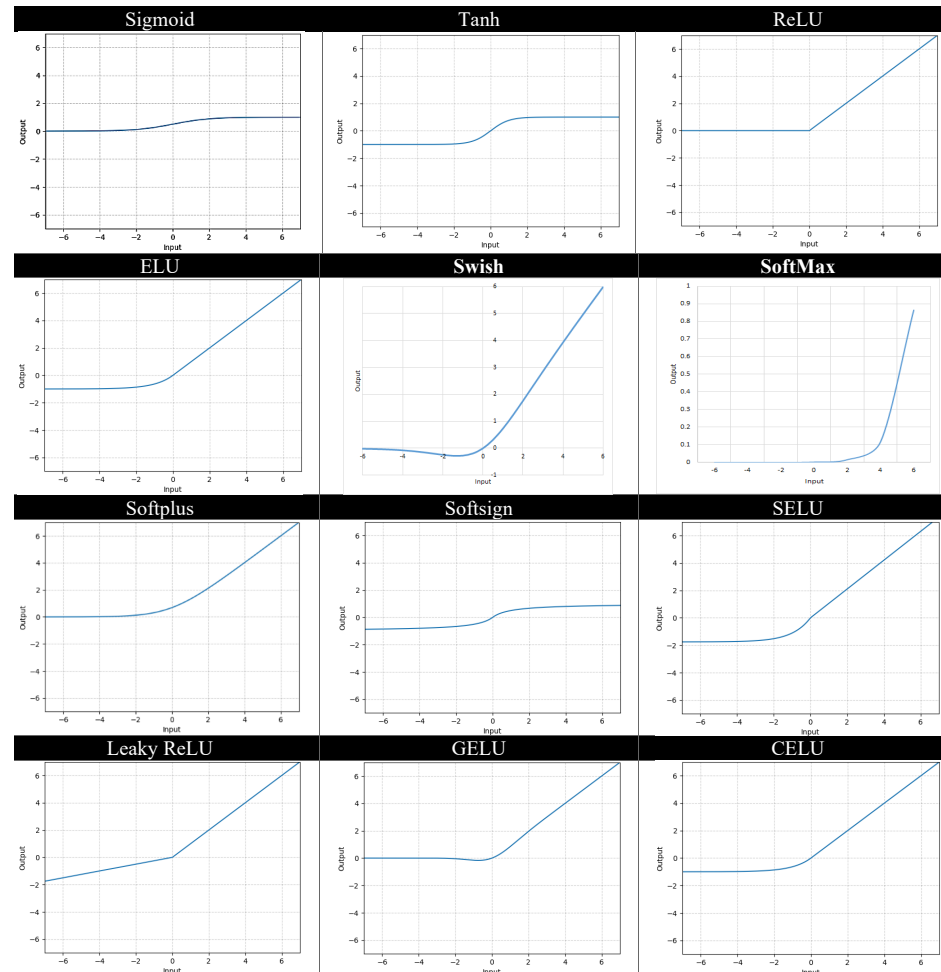




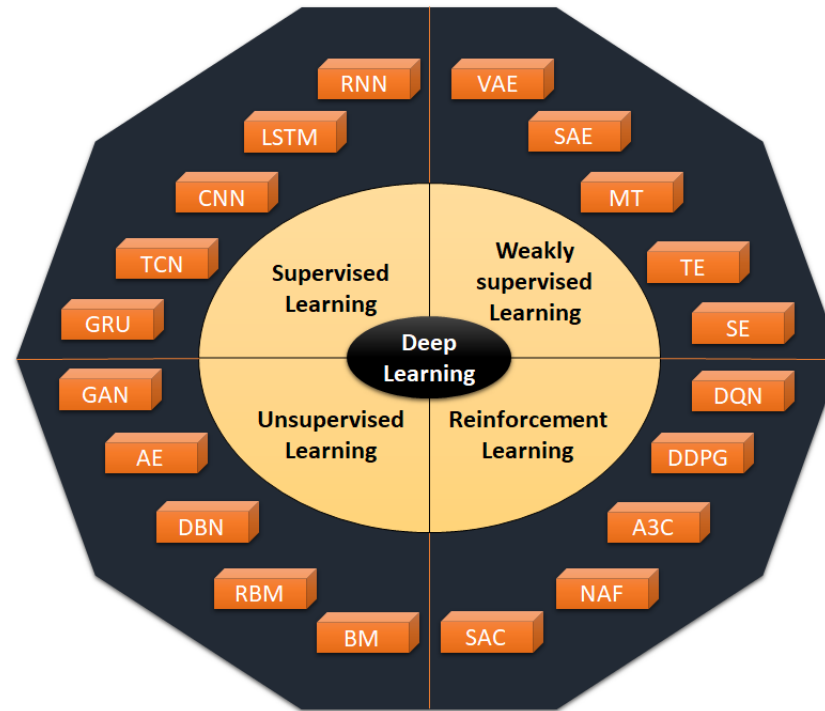
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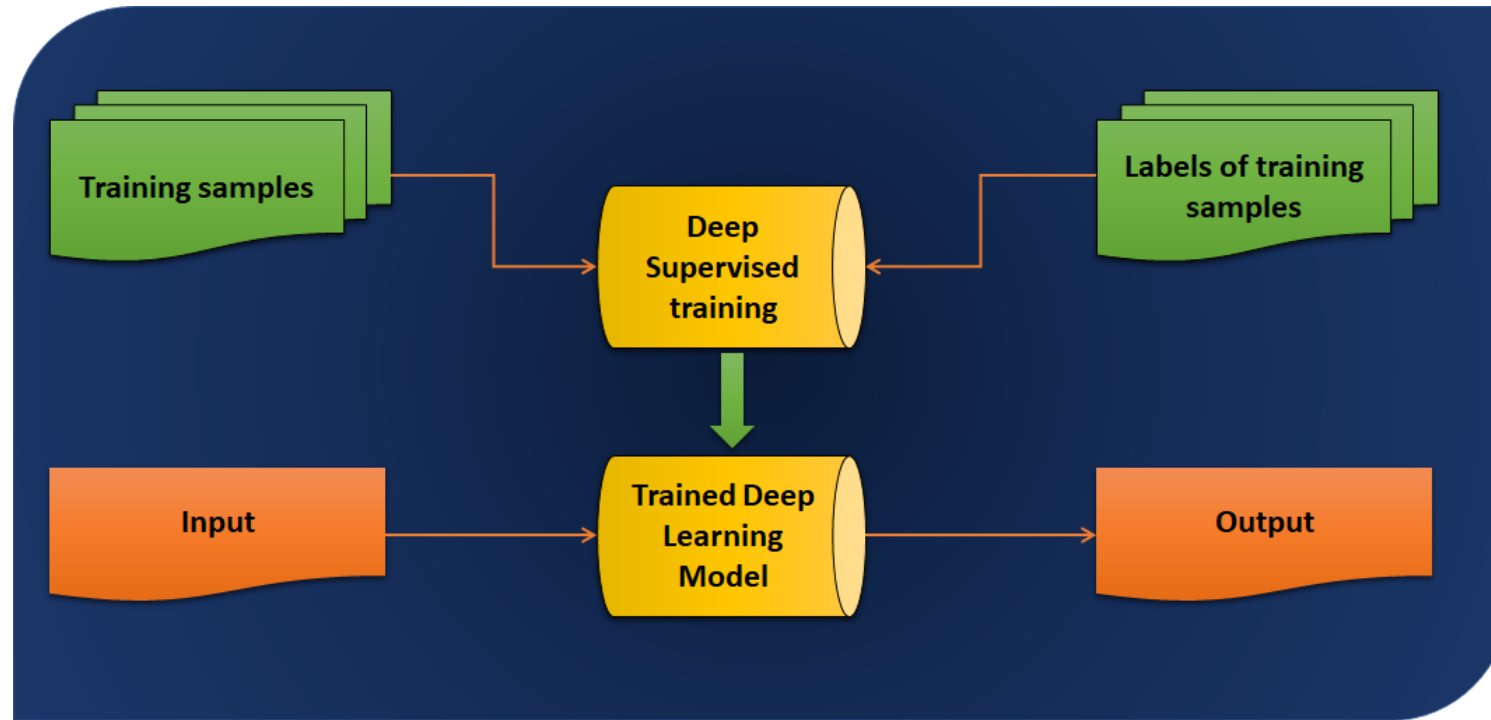




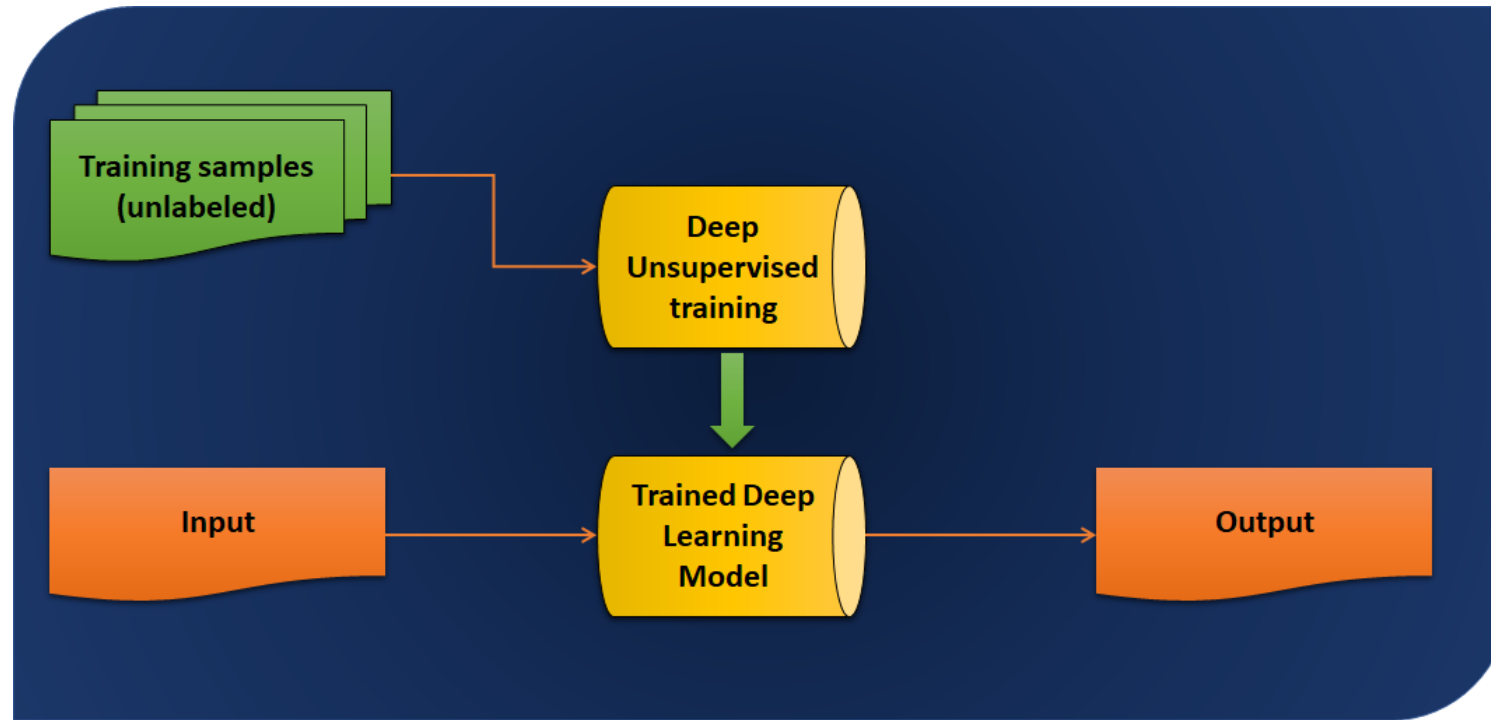
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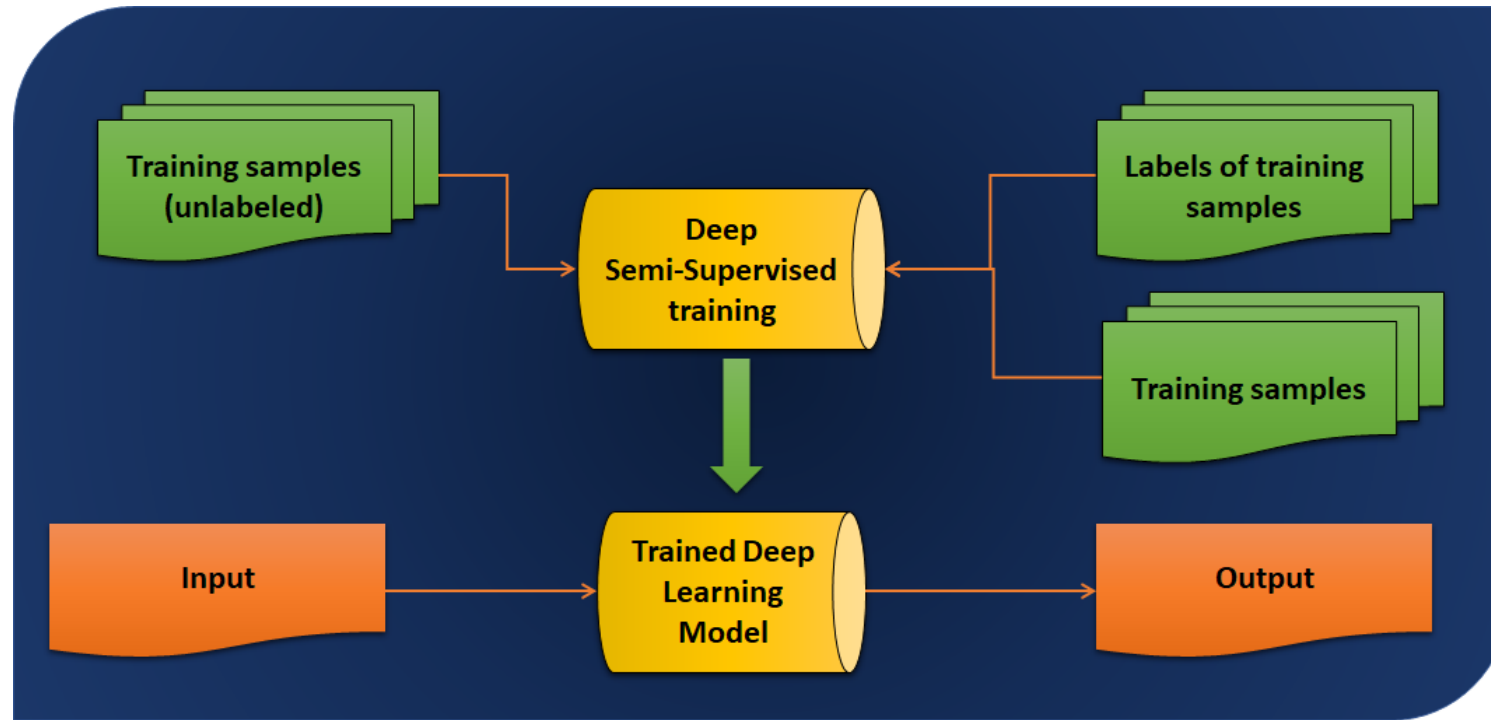
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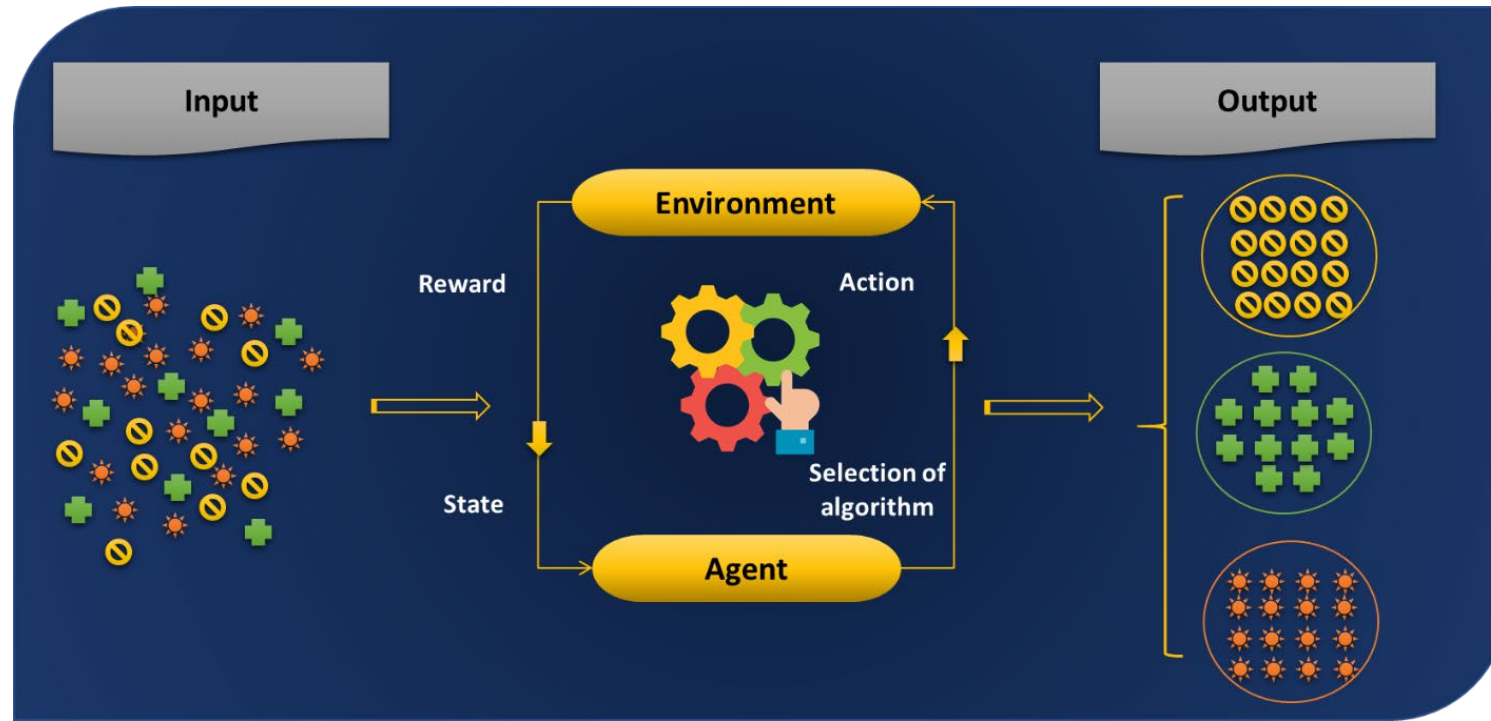
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ARTIFICIAL INTELLIGENCE FOR SECURE INTERNET OF THINGS

PRIVACY IN INTERNET OF THINGS

- The word “privacy” originates from the old French term “privauté”, which implies confidentiality, mystery, secrecy, or isolation.
- The concept of Privacy has an extended history of definitions and implications.
- One of the major motives behind the privacy interest in IoT environments is the thriving of deep learning, which enables developing models to learn from IoT data to offer intelligent solutions that can enhance the functionality or the security of the underlying system