

# DAILY WORK REPORT TR-02

**INFOWIZ** 

7 JUNE 2024

# Day 2: Exploring Machine Learning Algorithms

**Summary:** Today's focus was on exploring the different types of machine learning algorithms. We delved deeper into each category—supervised, unsupervised, and reinforcement learning—to understand their applications and underlying principles.

### **Key Learnings:**

### 1. Supervised Learning:

- Explored supervised learning algorithms where the model learns from labeled data.
- O Studied examples such as linear regression for continuous outcomes and logistic regression for binary classification tasks.
- O Understood the importance of training data and how models generalise to make predictions on new data.

# 2. Unsupervised Learning:

- O Learned about unsupervised learning algorithms that find patterns or structure in unlabelled data
- O Discussed clustering algorithms like K-means for grouping similar data points and dimensionality reduction techniques such as PCA (Principal Component Analysis) for feature extraction.

## 3. Reinforcement Learning:

- Explored reinforcement learning where an agent learns to make decisions by interacting with an environment and receiving feedback (rewards or penalties).
- O Discussed applications in gaming, robotics, and self-driving cars, highlighting the sequential decision-making process.