

**Day 11 – June 30, 2025**

**Topic:** ML Algorithms – Linear & Logistic Regression

### **Introduction**

Today I implemented foundational ML algorithms to predict outcomes from data.

### **Linear Regression**

- Predicts continuous values using a linear relationship.
- Example: Predicting house prices based on features.

### **Logistic Regression**

- Predicts categorical outcomes (e.g., Yes/No).
- Example: Predicting if a student passes based on study hours.

### **Challenges Faced**

- Understanding evaluation metrics like accuracy, MSE.

### **Key Learnings**

- Train-test split ensures proper model evaluation.
- ML relies heavily on good-quality data.

### **Conclusion / Reflection**

Linear and logistic regression are foundational for AI. Excited to apply models in real projects.