

## **Week 4**

### **Tasks Completed:**

- Tuned models: ANN (MLP), SVR, and Random Forest.
- Evaluated models using  $R^2$  and MSE.
- Random Forest achieved highest accuracy ( $R^2 = 0.857$ ).
- Generated performance comparison plots.

### **Challenges Faced:**

- SVR and ANN models underperformed due to limited dataset size.

### **Tasks Planned for Next Week:**

- Validate feature importance with domain knowledge.
- Begin drafting visualizations for feature relevance.