

# Digital Twin for Plant Health Monitoring

Rayan Contuliano Bravo

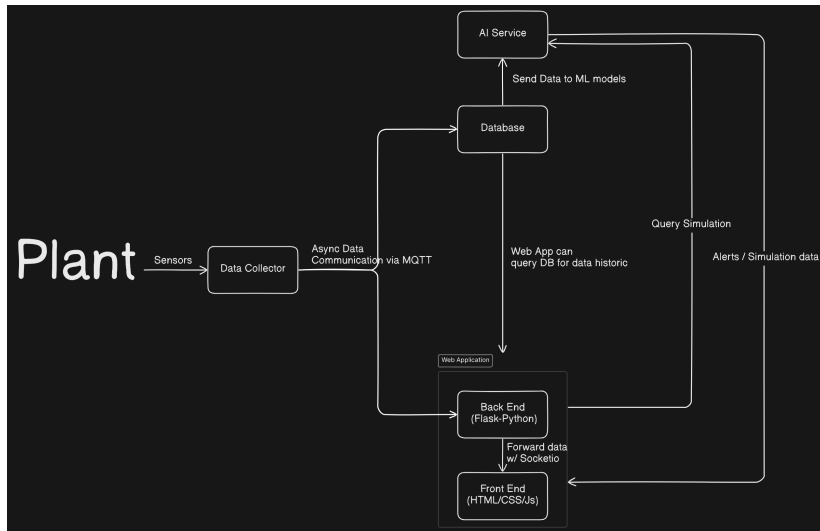
Université Libre de Bruxelles

20/03/2025

# Predictions

- ▶ **Soil Moisture Prediction:** Predict how long it will take until the soil moisture drops below a certain threshold based on historical soil moisture data, temperature, and humidity(**Need watering**)
- ▶ **Light Intensity Optimization:** Predicts the optimal light intensity or duration of exposure for plant growth based on historical light and growth data
- ▶ **Prediction of Watering Frequency:** Predicts how often plants will need watering over a future period based on current environmental conditions and historical trends
- ▶ **Heating or Cooling Recommendations:** Predict the need for cooling or heating interventions.

# Communication Diagram



# Demo