Time series data labeling assistant

IoT data labeling autonomous agent for predictive maintenance

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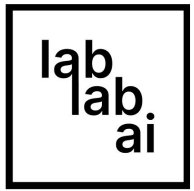


AI-FOR-FUN team

Industrial IoT (IIoT) domain background & market size

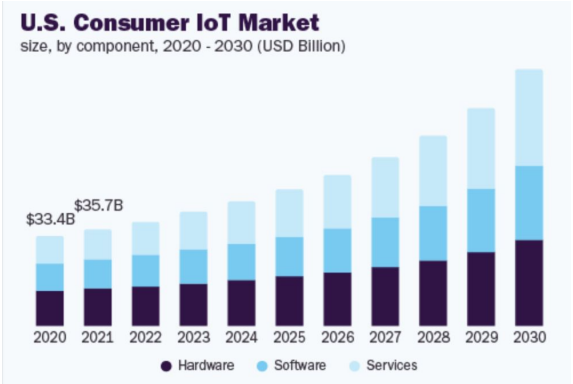
IIoT, refers to the integration of machinery and **industrial** equipment with **sensors** and software to gather and **analyze data.**

Key Benefits:

- Optimized Operations
- Predictive Maintenance
- Energy Efficiency

Market Size:

- Valued at approximately **USD 77.3 billion in 2020**.
- Expected to reach over **USD 110 billion by 2025**
- **Growing at a CAGR of 7.4% from 2020 to 2025**.



ML data labeling assistant - motivation

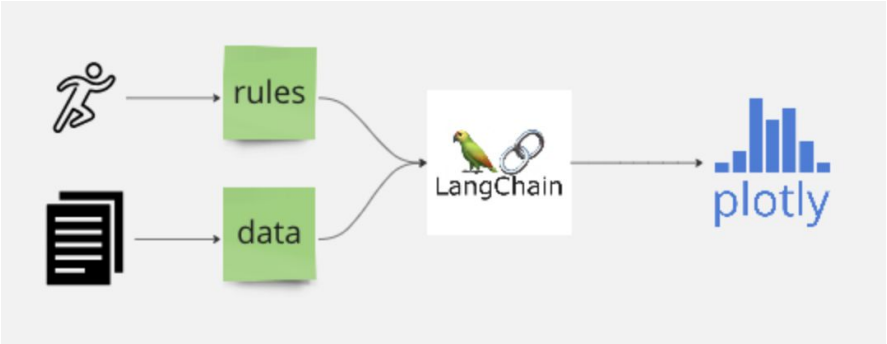
Problem statement: Audit of IoT data from sensors becomes increasingly more difficult due to complex rules, which need to be applied in the observability tools.

Why: Number of sensors increased and complexity of understanding metrics is requires machine learning solutions. However, in order to build machine learning based observability models we need labeled data for specific domain behaviors. These rules are understood as anomalies by domain experts (Predictive maintenance).

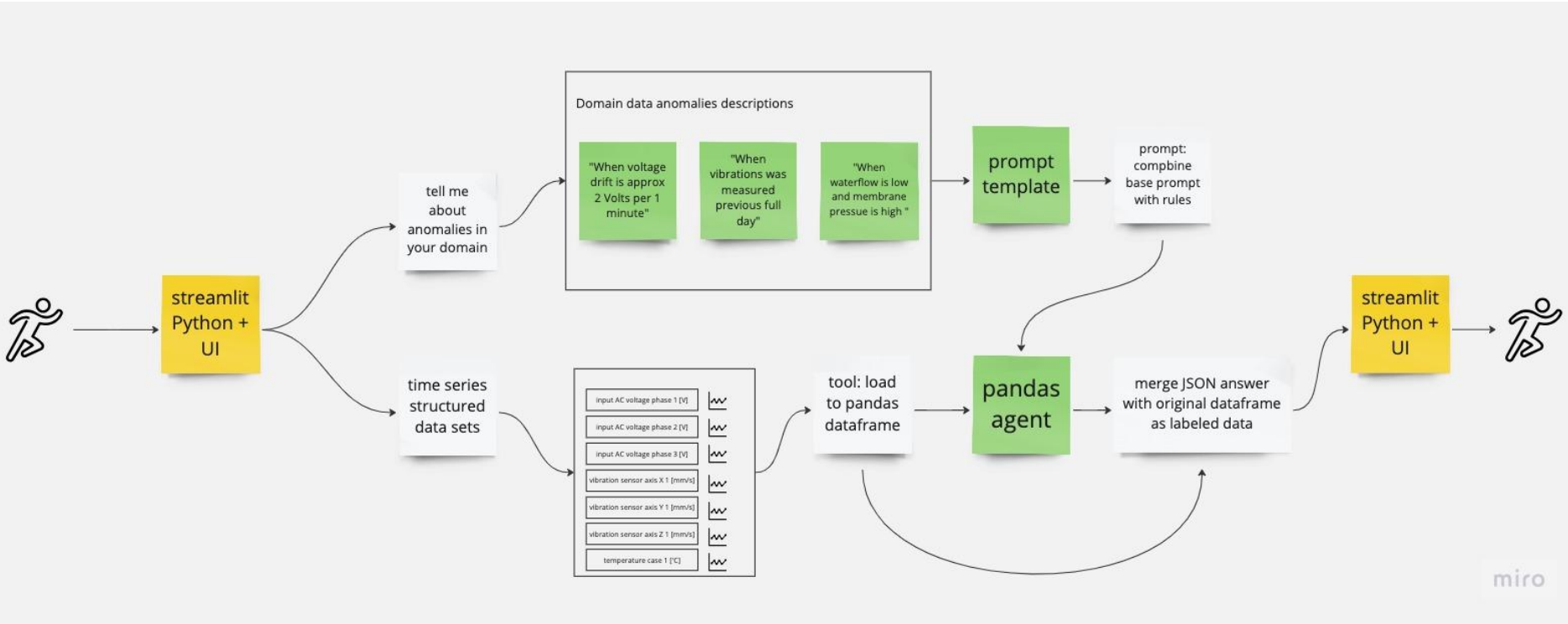
Solution: We would like to create tool to support domain experts.So that they can easily find anomalies in the data for preventing issues of machines malfunctions.

Steps to deliver results in the assistant

1. Upload the csv time series data
2. Define rules as human understandable logic of anomaly
   a. You can use sensor names from CSV uploaded files
   b. You can use time windowed logic
   c. All rules have AND logic for agent
3. Run agent
4. Review and download results



Low level proposed architecture



How to check assistant

URL: https://ml-data-labeling-assistant.streamlit.app/