Sight Machine Model Card

Model Card Snapshot

Summary

This is a tool to help manufacturers create corporate standard data dictionaries of machine sensor data. With many generations of equipment and sensors, similar data fields often have different names, adding to the complexity of discovering and analyzing data. This model acts like a translator from one set of machine sensor names to another. It will attempt to understand the rules behind legacy naming schemes and map them all to a new enterprise-wide naming convention. This tool uses a fine-tuned Phi-3.5 instruct model. By providing it with information on the new naming convention and a list of data fields to be renamed, it will provide a new name for those fields and a new confidence score on the potential name.

Use Case

SML-SLM is intended to be used when a manufacturer has a large number of machine sensor tags that need to be named or renamed according to a new corporate standard. Manually renaming tags can be a tedious and time-consuming process and requires extensive knowledge on the nuances of both the legacy and the target naming scheme. This tool will help automate and speed up the process. Having a uniform naming scheme allows the tags to be more understandable and usable by process experts on and off the line, as well as data analysts/scientists.

Limitations: When renaming a wide variety of uncommon asset types, or for highly complex corporate naming conventions, the language model may struggle to find matching patterns. Also, input variable names that do not contain clues as to the data payload (e.g. all numbers or names not based on English-words) may not map easily to the new naming convention.

Details

N	Model Provider	Sight Machine
1	Model Family Name	Phi-3
2	Model Name	Sight Machine Labeling Small Language Model (SML-SLM)
3	Base Model (i.e. google/t5-v1_1-base)	Phi-3-mini-4k-instruct
4	Scenario	SML-SLM is intended to be used when a manufacturer has a large number of machine sensor tags that need to be named or renamed according to a new corporate standard. Manually renaming tags can be a tedious and time-consuming process and require extensive knowledge on the nuances of both the legacy and the target naming scheme. This tool will help automate and speed up the process. Having a uniform naming scheme allows the tags to be more understandable and usable by process experts on and off the line, as well as data analysts/scientists.
5	Priority	P0
6	Industry	Manufacturing
7	Language Supported (i.e. English)	English
8	Jurisdiction	US
9	1P/3P	3P
10	Proprietary or Open Weight	Proprietary
11	Monetization needed	Tokens
12	Model Type (i.e. generative)	Generative
13	Model Input Format (i.e. document)	Document

N	Model Provider	Sight Machine
14	Model Output Format (i.e. sentence)	Document
15	Inference runtime	Standard_NC24ads_A100_v4
16	License (i.e. MIT)	SIGHT MACHINE OT Data UNS Models License Agreement
17	GPU (i.e. NC_A100 _4 _series)	Standard_NC24ads_A100_v4 or Standard_NC48ads_A100_v4
18	Target Announcement Date	November 18, 2024
19	Target Model Publish Date	November 18, 2024
20	User Fine Tuning required?	No
21	Serverless API and/or Managed Servers?	Managed Servers
22	Content Safety Integration? (Azur Content Safety?)	Yes
23	Performance benchmark	Custom Classification Accuracy