

Machine Learning

Framework	Platform	Library
Accord.NET, Microsoft Action	Angel (Graduated), ForestFlow (Incubating)	IML (Sandbox), DeepCausality (Sandbox), IREE (Sandbox)
Hugging Face CANN, Microsoft LightGBM	Open Platform for Enterprise AI (Sandbox), Alibaba Alink, Apache SystemML	Recommenders (Sandbox), SapientML (Sandbox), AutoGluon, CatBoost
MAHOUI, ML.NET	H2O, KubeFlow, MEDIANFLOW, mlflow	Flashlight, MediaPipe
RAY, ZenML	Predictor3D, SELDOM, VIVALDI MATHLET	mipack, Learn, OpenCV, CAPET, Learn

Deep Learning

Framework	Platform	Library	Tool
DeepRec (Sandbox), RYOMA (Sandbox), ShaderNN (Sandbox)	Tony (Incubating)	BigDL, Catalyst, DL4J, fast.ai	BeyondML (Sandbox)
SINGA, Chainer, CNTK, ay/net, Alibaba Euler, MindSpore	DeepDetect, Determined AI, Keras	BoTorch, Intel Distiller	PyTorch Lightning
mxnet, ncn, 飞桨 PaddlePaddle, Pythia, PYTORCH, TensorFlow	Chopanel, Polyaxon	PyTorch Ignite, PyTorch Lightning	ploidML, PyTorch Hub
	Alibaba.com DeepLearning	PyTorch Video	PyTorch

Programming

Programming	Reinforcement Learning
Pyro (Graduated), Kompute (Incubating), DASK, Infer.NET	Chainer RL, CleanRL, Coach
julia, MARS, Numba, NumPy, NYOKA	DeepMind Lab, Expensify, Horizon
pygame, PyMC3, python, R, SciPy	OpenAI, Google PlanNet, Google SEED RL
SKIP, Stan	Stable Baselines

Data

Education	Lineage	Relational DB	Store & Format	Versioning	Operations	Feature Engineering	Stream Processing	SQL Engine	Visualization	Pipeline Management	Labeling & Annotation	Governance
DATA PRACTICES.ORG (Incubating), OpenDS4All (Incubating)	OpenLineage (Graduated), OpenBytes (Sandbox)	CouchDB, MySQL, KV	docarray (Graduated), Milvus (Graduated), DELTA LAKE (Incubating), JanusGraph (Incubating)	dotaience, DVC	MARQUEZ (Graduated), Amundsen (Incubating), datashim (Incubating)	FEAST (Incubating), feathr (Sandbox)	NNStreamer (Incubating), Flink, fluentd, PULSAR, samza	APACHE DRILL, HAWQ, presto, SQLFlow, trino	bakeh, IBM Dash, Uber deck.gl, Ecco, Google Facets, Grafana, Metabase, RCloud, re dash	Artigraph (Sandbox), Intel Analytics Zoo, DAGSTER, PIFlow	Xtremel (Sandbox), Intel CVAT, Doccano, Labelbox, Labelimg	EGERIA (Graduated), Bitol (Incubating), Unity Catalog (Sandbox)

Model

Inference	Federated Learning	Training	Parameter	Format & Interface	Marketplace	Workflow	Benchmarking	Tool
ADLIK (Incubating), kServe (Incubating)	FATE (Incubating), Substra (Incubating)	AIROVIO (Graduated), deepspeed (Incubating), LEWDIG (Incubating)	HYPEROPT, Katib	ONNX (Graduated)	Machine Learning exchange (Sandbox), Acumos (Archived)	Flyte (Graduated), kedro (Incubating)	DAWNBench, MLPerf	FlagAi (Sandbox), Qualcomm AIMET, Facebook dlrn, Microsoft MML, AWS MMS

Distributed Computing

Computing & Management	Interface	Security & Privacy	Natural Language Processing	Models	Tools	Notebook Environment	Explainability	Adversarial	Bias & Fairness
EDL (Incubating), SOAJS (Incubating), Bahir	OPEN VOICE INTEROPERABILITY (Incubating), sparklyr (Incubating)	Google Differential Privacy, IBM HELIX, Microsoft SEAL, Google TensorFlow Privacy, TFEnergyed	DELTA (Incubating), RosaeNLG (Sandbox), Google ALBERT, AllenNLP, fastText, flair	RWKV (Incubating), LLM (Incubating)	LLM (Incubating), Monocle (Sandbox)	Elyra (Sandbox), colab, BeakerX, ENVD	AI Explainability 360 (Incubating), ELIS, Microsoft Responsible AI, SHAP, SKATER	Adversarial Robustness Toolbox (Graduated), AdvBox, CoverTorch	AI Fairness 360 (Incubating), TRUSTMARK (Incubating), Intersectional Fairness (Sandbox), Aquitas, Audit AI, Fairlearn