

Machine Learning	Framework Accord.NET, Microsoft AutoGen, Hugging Face CANDLE, Microsoft LightGBM, MAHOUT, ML.NET, Open Platform for Enterprise AI, RAY, ZenML	Platform Angel (Graduated), ForestFlow (Incubating), Alibaba Alink, Apache SystemML, AX, cortex, H2O, Kubeflow, MEFLOW, mlflow, Prediction3D, SELDOVA, YOMPAL WABBYT	Library 1ML, DeepCausality, Recommenders (Sandbox), SapientML, AutoGluon, CatBoost, Flashlight, MediaPipe, mlpack, OpenCV, openmpi, PCARET, Leann, 將軍 Shogun, Sonnet, Salesforce TransmogitAI, dmlc XGBoost, xLearn	
	Deep Learning	Framework DeepRec (Sandbox), ShaderNN (Sandbox)	Platform TONY (Incubating)	Library BigDL, Catalyst, DL4J, fast.ai, Keras, TensorFlow, PyTorch, PyTorch Lightning, PyTorchVideo, PyTorchXLA
		Tool BeyondML (Sandbox)	Programming Pyro (Graduated), Kompute (Incubating), DASK, Infer.NET, Julia, MARS, Numba, NumPy, NYOKA, pimegranate, PyMC3, python, R, SciPy, SKIP, Stan	
		Reinforcement Learning CleanRL, Coach, DeepMind Lab, Dopamine, Horizon, OpenAI, Google PlanNet, Google SEED RL, Stable Baselines		
		Reinforcement Learning		

Data	Education DATAPRACTICES.ORG (Incubating), OpenDS4All (Incubating)	Lineage OpenLineage (Graduated), OpenBytes (Sandbox), Open Dataology (Sandbox)	Relational DB CouchDB, MySQL, KV	Store & Format Milvus (Graduated), docarray (Incubating), JanusGraph (Incubating), LakeSoul (Sandbox), ALLUXIO, ICEBERG, ORC, ARESOB, ARROW, XRX, CEPH, DELTA LAKE, Dragonfly, druid, hudi, HugelGraph, influxdb, pandas, Parquet, pilosa, StarRocks, Vald, VEARCH, vespa, Vineyard	Versioning databricks delta, DVC, FERNET, ouilt	Operations MARQUEZ (Graduated), Amundsen (Incubating), datashim (Incubating), Mathesar, snorlet, WHYLABS whylogs	Feature Engineering FEAST (Incubating), feathr (Sandbox), Featuretools, ML OpenLDB, tsfresh	Stream Processing NNSreamer (Incubating), RocketMQ, beam, brooklin, Flink, fluentd, kafka, logstash, Pravega, PREFECT, PULSAR, samza, Uber uReplicator	SQL Engine ARACHE DRILL, HAWQ, presto, SQLFlow, trino	Visualization bokeh, IBM Custom Design System, D3, plotly Dash, Uber deck.gl, Ecco, Google Facets, Grafana, Metabase, Prometheus, RCloud, re dash, NYU ecosystem, Superset, Google TensorBoard	Pipeline Management Artigraph (Sandbox), intel Analytics Zoo, DAGSTER, PiFlow, TEKTON	Labeling & Annotation Xtreme! (Sandbox), intel CVAT, Doccano, Labelbox, Labeling, HITACHI Inspire the Next, Microsoft VOLT	Governance EGERIA (Graduated), Bitol (Sandbox), COBENEFIT DATA, COBENEFIT AI
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Model	Inference ADLIX (Incubating), KServe (Incubating), CausalML, MNN, NVIDIA TensorRT, NVIDIA TensorRT Inference Server, uTensor, vLLM	Federated Learning FATE (Incubating), Substra (Incubating), OPENFL (Sandbox), PySyft, TensorFlow Federated	Training Kobold (Graduated), Ludwig (Incubating), deepspeed, Microsoft Research Learning Library, Petastorm, TorchRec	Parameter HYPEROPT, Katib, talos	Format & Interface ONNX (Graduated), Uber Neuropod, Microsoft Semantic Kernel	Marketplace Machine Learning exchange (Sandbox), Acumos (Archived), IBM	Workflow Flyte (Graduated), kedro (Incubating), argo, Azkaban, BENTOML, Cadence, Couler, CYCLONE, DataBolt dflow, kestra, Spotify luigi, mLeap, Orchest, PREFECT, TRAINS	Benchmarking MLPerf, DAWN Bench	Tool FlagAI 飞智 (Sandbox), Qualcomm AIMET, FLAML, Microsoft MMS, Amazon Neo-AI, NETRON, ONNX SQUINT, PipelineAI, studio.mi, Google TensorFlow Model Analysis, AWS TorchServe, turi	Data RWKV LANGUAGE MODEL (Incubating)
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Distributed Computing	Computing & Management EDL Elastic Deep Learning (Incubating), SOAJS (Incubating), MESOS, Apache Ranger, spark, STORM, ARIMA, GNS3, NETFLIX genie, GraphScope, kubernetes, intel Nauta, OPENSHIFT, Singularity	Interface OPEN VOICE INTEROPERABILITY (Incubating), sparklyr (Incubating), ARABIC TORRE, LOWY	Security & Privacy Security & Privacy (Vertical Label), Google Differential Privacy, IBM HElib, Microsoft SEAL, Google TensorFlow Privacy, YFEncrypted	Natural Language Processing DELTA (Incubating), RosaeNLG (Sandbox), Google ALBERT, AllenNLP, Google Bert, CoreNLP, Mozilla DeepSpeech, fastText, flair, LUON, haystack, Kashgari, FACEBOOK LASER, Rasa, spaCy, Transformers, Facebook XLM, YouTokenToMe	Notebook Environment Elyra (Sandbox), colab, BeakerX, IPy[O]: IPython, jupyter, IBM, PolyNote, Streamlit	Explainability ALBZ, Captum, ELIS, SHAP, SKATER	Adversarial Adversarial Robustness Toolbox (Graduated), AdvBox, odover torch	Bias & Fairness AI Fairness 360 (Incubating), TRUSTMARK (Incubating), Intersection Fairness (Sandbox), Aequitas, Audit AI, Standard University, Fairlearn
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