

	Framework	Platform	Library	Framework	Platform	Library	Tool	Programming	Reinforcement Learning
Machine Learning	Accord.NET, Microsoft Azure ML	Angel (Graduated), ForestFlow (Incubating)	1ML (Sandbox), DeepCausality (Sandbox), IREE (Sandbox)	DeepRec (Sandbox), ShaderNN (Sandbox)	TONY (Incubating)	BigDL, Catalyst	BeyondML (Sandbox)	Pyro (Graduated), Kompute (Incubating), DASK, IntelNET	OpenAI, CleanRL, Coach
	Hugging Face CANDLE, Microsoft LightGBM	Open Platform for Enterprise AI (Sandbox), Alibaba Alink, Apache SystemML	Recommenders (Sandbox), Sapient ML (Sandbox), AutoGluon, CatBoost	SINGA, Chainer, Microsoft CNTK, ðy/net	DeepDetect, Determined AI	DL4J, fast.ai	BoTorch, Intel Distiller	Julia, MARS, Numba, NumPy, NYOKA	DeepMindLab, Dopamine, Horizon
	MAHOUI, ML.NET	H2O, KubeFlow, METAFLOW, mlflow	mipack, OpenCV, openonnx, FCARET, Legato	Alibaba euler, MindSpore, mxnet, ncnn	jina, Onepanel	Keras	pLaidML, PyTorch Lightning	pymigrate, PyMC3, python, R, SciPy	OpenAI, Google PlanNet, Google SEED RL
	RAY, ZenML	SELOM, VONPAL HARVEST	將軍 Shogun, Sonnet, Salesforce Transmogrid, dmlc XGBoost, xLearn	Pythia, PYTORCH, TensorFlow	Polyaxon, HEBE, Alibaba.com XInference	PyTorch Video	PyTorch	SKIP, Stan	State Baselines

	Education	Lineage	Relational DB	Store & Format	Versioning	Operations	Feature Engineering	Stream Processing	SQL Engine	Visualization	Pipeline Management	Labeling & Annotation	Governance
Data	DATA PRACTICES.ORG (Incubating), OpenDS4All (Incubating)	OpenLineage (Graduated), OpenDataology (Sandbox)	CouchDB, MySQL, KV	docarray (Graduated), LakeSoul (Sandbox), Milvus (Graduated), DELTA LAKE (Incubating), JanusGraph (Incubating)	datascience-stem, DVC, PyData, PyTorch, PyTorch Lightning	MARQUEZ (Graduated), Amundsen (Incubating), datashim (Incubating), Mathesar, snoriel, WHYLABS whylogs	FEAST (Incubating), feathr (Sandbox), Featuretools, ML OpenMLDS, tsfresh	NNStreamer (Incubating), Flink, fluentd, Pravega, PREFACT, PULSAR, samza, RocketMQ, beam, brooklin, kafka, logstash, PULSAR, samza	HAWQ, presto, SQLFlow, trino	bakeh, plotly Dash, Uber deck.gl, Google Facets, Grafana, Metabase, RCloud, reDash, NYU, Superset, Google TensorBoard	Artigraph (Sandbox), Intel Analytics Zoo, DAGSTER, PIFlow	Xtremel (Sandbox), intel CVAT, Doccano, Labelbox, LabelImg, HITACHI Inspire the Next, Microsoft VOT	EGERIA (Graduated), Bitol (Sandbox)

	Inference	Federated Learning	Training	Parameter	Format & Interface	Marketplace	Workflow	Benchmarking	Tool	Data
Model	ADLIX (Incubating), KServe (Incubating)	FATE (Incubating), Substra (Incubating), OPENFL (Sandbox)	MicroViz (Graduated), LEWDIG (Incubating)	HyFlow, KATIB	ONNX (Graduated), Uber Neopod, Microsoft ONNX Runtime	Machine Learning Exchange (Sandbox), Acumos (Archived), IBM	Flyte (Graduated), kedro (Incubating), C4TME-D (Sandbox), Airflow, nifi	DAWN Bench, MLPerf	FlagAI (Sandbox), Quicoma AIMET, Facebook DNN, Amazon MMS, FLAML, Microsoft MMin, AWS	RWK LANGUAGE VOICE (Incubating)

	Computing & Management	Interface	Security & Privacy	Natural Language Processing	Notebook Environment	Trusted & Responsible AI	Explainability	Adversarial	Bias & Fairness
Distributed Computing	EDL (Incubating), SOAJS (Incubating), Bahir (Incubating)	OPEN VOICE INTEROPERABILITY (Incubating), sparklyr (Incubating)	Google Differential Privacy, IBM HElib, Microsoft SEAL, Google TensorFlow Privacy, TFEncliyed	DELTA (Incubating), ROSAE NLG (Sandbox), Google ALBERT, AllenNLP, flair, LUON, haystack, Kashgari, FACEBOOK LASER, RASA, spaCy, intel NLP Architect, NLP, ParIAI, FACEBOOK PyTorch, TRANSFORMERS, YouTokenToMe	Elyra (Sandbox), colab, BeakerX, IP[y]: IPython, jupyter, PolyNote, Stencil, Streamlit	AI Explainability 360 (Incubating), ELIS, Google Lucid, Bolt, Treetinterpreter, trulens	Adversarial Robustness Toolbox (Graduated), AdvBox, clevr-hans	AI Fairness 360 (Incubating), Intersectional Fairness (Sandbox), Aequitas, Audit AI, Stanford University, Fairlearn	