

Machine Learning

Framework	Platform	Library
<ul style="list-style-type: none"> Accord.NET Microsoft Azure ML Hugging Face CANDLE Microsoft LightGBM MAHOOT ML.NET RAY ZenML 	<ul style="list-style-type: none"> Angel (Graduated) ForestFlow (Incubating) Open Platform for Enterprise AI (Sandbox) Alibaba Alink Apache SystemML Ax cortex H2O KubeFlow METAFLow mlflow PredictionIO SELDOM VONPAL HABEST 	<ul style="list-style-type: none"> 1ML (Sandbox) DeepCausality (Sandbox) IREE (Sandbox) Recommenders (Sandbox) Sapient ML (Sandbox) Flashlight MediaPipe mlpack OpenCV openonnx CARET Legato 將軍 Shogun Sonnet Salesforce Transmogrid dmlc XGBoost xLearn

Deep Learning

Framework	Platform	Library	Tool
<ul style="list-style-type: none"> DeepRec (Sandbox) ShaderNN (Sandbox) SINGA Chainer Microsoft CNTK dy/net Alibaba euler MindSpore mxnet ncnn Pythia PYTORCH TensorFlow 	<ul style="list-style-type: none"> TONY (Incubating) DeepDetect Determined AI jina Onepanel Polyaxon HERBIE Alibaba.com 	<ul style="list-style-type: none"> BigDL Catalyst DL4J fast.ai Keras PyTorch Ignite PyTorch Lightning PyTorchVideo 	<ul style="list-style-type: none"> BeyondML (Sandbox) BoTorch intel Distiller ppldML PyTorch Hub PyTorch tvm

Programming

Programming	Reinforcement Learning
<ul style="list-style-type: none"> Pyro (Graduated) Kompute (Incubating) DASK Intel.NET julia MARS Numba NumPy NYOKA pymc3 PyMC3 python R SciPy SKIP Stan 	<ul style="list-style-type: none"> CleanRL Coach DeepMindLab Dopamine Horizon OpenAI Google PlaNet Google SEED RL State Baselines

Data

Education	Lineage	Relational DB	Store & Format	Versioning	Operations	Feature Engineering	Stream Processing	SQL Engine	Visualization	Pipeline Management	Labeling & Annotation	Governance
<ul style="list-style-type: none"> DATA PRACTICES.ORG (Incubating) OpenDS4All (Incubating) 	<ul style="list-style-type: none"> OpenLineage (Graduated) OpenBytes (Sandbox) Open Dataology (Sandbox) 	<ul style="list-style-type: none"> CouchDB MySQL KV 	<ul style="list-style-type: none"> docarray (Graduated) LakeSoul (Sandbox) Milvus (Graduated) DELTA LAKE (Incubating) JanusGraph (Incubating) ALLUXIO ICEBERG ORC ARESOB ARROW PARQUET CEPH Dragonfly druid HUDI HugeGraph Influxdb pandas Parquet pilosa StarRocks Valid VEARCH vespa Vineyard 	<ul style="list-style-type: none"> datascience connect DVC Quilt 	<ul style="list-style-type: none"> MARQUEZ (Graduated) Amundsen (Incubating) datashim (Incubating) Mathesar snorl WHYLABS whylogs 	<ul style="list-style-type: none"> FEAST (Incubating) feathr (Sandbox) Featuretools ML OpenMLDS tsfresh 	<ul style="list-style-type: none"> NNStreamer (Incubating) brocklin beam Flink fluentd kafka logstash PREFECT PULSAR samza Uber uReplicator 	<ul style="list-style-type: none"> HAWQ presto SQLFlow trino 	<ul style="list-style-type: none"> bakeh plotly Dash Uber deck.gl Ecco Google Facets Grafana Metabase Prometheus RCloud redash NYU Superset Google Tableau 	<ul style="list-style-type: none"> Artigraph (Sandbox) Analytics Zoo DAGSTER PIFlow TENKON TPOT 	<ul style="list-style-type: none"> Xtremel (Sandbox) Labelbox LabelImg HITACHI Inspire the Next Microsoft VOT 	<ul style="list-style-type: none"> EGERIA (Graduated) Bitol (Sandbox) IBM OpenMLDS Microsoft VOT

Model

Inference	Federated Learning	Training	Parameter	Format & Interface	Marketplace	Workflow	Benchmarking	Tool	Data
<ul style="list-style-type: none"> ADLIK (Incubating) KServe (Incubating) CaixaML MNN NVIDIA TensorRT NVIDIA TensorRT uTensor vLLM 	<ul style="list-style-type: none"> FATE (Incubating) Substra (Incubating) OPENFL (Sandbox) PySyft TensorFlow Federated 	<ul style="list-style-type: none"> MicroViz (Graduated) LEWDIG (Incubating) deepspeed Microsoft TensorFlow Federated Petastorm TorchRec 	<ul style="list-style-type: none"> HYPERMART KATIB talos 	<ul style="list-style-type: none"> ONNX (Graduated) Uber Neopod Microsoft OpenMLDS 	<ul style="list-style-type: none"> Machine Learning Exchange (Sandbox) Acumos (Archived) IBM 	<ul style="list-style-type: none"> Flyte (Graduated) kedro (Incubating) CLAYME (Sandbox) airflow argo Azaban BENTONML Cadence Couler CYCLONE DataBolt dflow kestra Spotify Luigi mleap Orchest PREFECT TRAINS volcano 	<ul style="list-style-type: none"> DAWN Bench MLPerf 	<ul style="list-style-type: none"> FlagAI 达智 (Sandbox) FLAML Microsoft MMLoss amazon Neo-AL NETR-ON ONNX RUNTIME studio.ml Google TensorFlow Hub aws TorchServe turi 	<ul style="list-style-type: none"> Quicowa AIMET FACEBOOK ftrm aws MMS RWK LANGUAGE VOICE (Incubating)

Distributed Computing

Computing & Management	Interface	Security & Privacy	Natural Language Processing	Notebook Environment	Trusted & Responsible AI	Explainability	Adversarial	Bias & Fairness
<ul style="list-style-type: none"> EDL (Incubating) SOAJS (Incubating) Mesos Apache Ranger spark STORM GNSS NETFLIX genie GraphScope kubernetes intel Nauta OPENSIFT Singularity 	<ul style="list-style-type: none"> OPEN VOICE INTEROPERABILITY (Incubating) sparklyr (Incubating) APACHE TORE LVVY 	<ul style="list-style-type: none"> Google Differential Privacy IBM HEIB Microsoft SEAL Google TensorFlow Privacy TFEnrypted 	<ul style="list-style-type: none"> DELTA (Incubating) RosaeNLG (Sandbox) Google ALBERT Allen NLP flair LUON haystack Kashgari FACEBOOK LASER mosi intel NLP Architect NLP ParIAI FACEBOOK PyTorch RASA spaCy Transformers FACEBOOK XLM YouTokenToMe 	<ul style="list-style-type: none"> Elyra (Sandbox) colab BeakerX IP[y]: IPython jupyter ENVO Stencilio Streamlit 	<ul style="list-style-type: none"> AI Explainability 360 (Incubating) ELIS Google Lucid Bolt ALIBI Captum Microsoft HuggingFace UNIVERSITY OF WASHINGTON Lime SHAP SKATER trulens 	<ul style="list-style-type: none"> Adversarial Robustness Toolbox (Graduated) AdvBox advover torch cleverhans UNIVERSITY OF WASHINGTON Foolbox 	<ul style="list-style-type: none"> AI Fairness 360 (Incubating) Intersectional Fairness (Sandbox) OPEN VOICE TRUSTMARK (Incubating) Aequitas Audit AI Fairlearn 	