

MACHINE LEARNING, ARTIFICIAL INTELLIGENCE, AND DATA (MAD) LANDSCAPE 2021

INFRASTRUCTURE

STORAGE
Amazon S3, Azure Storage, Google Cloud Storage, IBM Storage, Pure Storage, Wasabi, Alluxio, Panasas, Nimble Storage, Cohesity, Qumulo, VAST, Datera, CUMIO

HADOOP
Cloudera, Amazon EMR, Google Cloud Dataproc, Azure HDInsight, Pivotal, Jethro, SAP Cloud Platform, IBM InfoSphere BigInsights, IBM InfoSphere

DATA LAKES
Databricks, Azure Data Lake Storage, Snowflake, Amazon Redshift, Google BigQuery, Oracle Data Lake, Snowflake, Amazon Redshift, Google BigQuery, Oracle Data Lake

DATA WAREHOUSES
Amazon Redshift, Snowflake, Google Cloud Bigtable, Amazon DocumentDB, Amazon Aurora, SAP HANA, Oracle, MongoDB, Amazon Aurora, SAP HANA, Oracle, MongoDB, Amazon Aurora

STREAMING / IN-MEMORY
Amazon Kinesis, Google Cloud Pub/Sub, Databricks, Amazon Kinesis, Google Cloud Pub/Sub, Databricks

RDBMS
Oracle, Microsoft SQL Server, Amazon Aurora, SAP ASE, Oracle, MongoDB, Amazon Aurora, SAP ASE, Oracle, MongoDB, Amazon Aurora

NoSQL DATABASES
Google Cloud Bigtable, Amazon DocumentDB, Amazon Aurora, SAP HANA, Oracle, MongoDB, Amazon Aurora, SAP HANA, Oracle, MongoDB, Amazon Aurora

NewSQL DATABASES
SAP HANA, Amazon Aurora, SAP HANA, Amazon Aurora, SAP HANA, Amazon Aurora, SAP HANA, Amazon Aurora

REAL TIME DATABASES
SingleStore, Amazon Aurora, SAP HANA, Amazon Aurora, SAP HANA, Amazon Aurora, SAP HANA, Amazon Aurora

GRAPH DBs
Neo4j, Amazon Neptune, IBM, Oracle, OrientDB, InfiniteGraph, Stardog, Objectivity, TigerGraph, TerminusDB

MPP DBs
Teradata, Vertica, IBM Data Warehouse Systems, Qlik, Cognitio, Exasol

ETL / ELT / DATA TRANSFORMATION
dbt, Talend, Alteryx, Fivetran, Stitch, Matillion, Pentaho, Trifacta, Amazon Glue, Amazon Athena, Amazon Redshift, Paxata, StreamSets, UNIFI, Tamr, Airbyte, Meitano, Narrator, Riverly

REVERSE ETL
Census, Hightouch, Grouparoo, Rudderstack, Flywheel Software, PolyTomic

DATA INTEGRATION
SAP Data Services, Segment, Informatica, MuleSoft, Tealium, Snaplogic, Qlik Data Catalyst, Tray.io, Xplenty, Attunity, Zaloni, Import.io, Infoworks, Snowplow, Flatfile

DATA GOVERNANCE & ACCESS
Informatica, SailPoint, IBM, Alation, Collibra, McAfee Skyhigh Security Cloud, Okera, Waterline Data, Data.world, Atlan, AAR, ObservePoint

PRIVACY & SECURITY
Very Good Security, Privacera, Cural, Cape Privacy, iCountry, Transcend, Skyflow, Duality, Privacy Dynamics, Ketch

DATA OBSERVABILITY
Datakin, Monte Carlo, Manta, Collibra, Datafold, Databand, Acceldata, Metaplane

MGMT / MONITORING
Amazon CloudWatch, New Relic, Splunk, AppDynamics, Rubrik, Dynatrace, Solarwinds, Wavefront, Actifio, Cribl, Moogsoft, Chronosphere, Utravel, Pagerduty, Scalyr, Zenoss, Sciencelogic, Magnitude, Veeam, Grafana Labs, OpsRamp, Honeycomb

SERVER-LESS
Amazon Lambda, IBM Cloud Functions, Amazon Lambda, IBM Cloud Functions, Amazon Lambda, IBM Cloud Functions

CLUSTER SVCS
Amazon ECS, IBM Power Systems, Amazon EKS, Amazon EMR, Amazon Redshift, Amazon Athena, Amazon SageMaker, Amazon EMR, Amazon Redshift, Amazon Athena, Amazon SageMaker

ANALYTICS

BI PLATFORMS
Looker, Tableau, Power BI, SAP, Google Data Studio, Periscope Data, ThoughtSpot, SAP, Google Data Studio, Periscope Data, ThoughtSpot

VISUALIZATION
Tableau, Power BI, SAP, Google Data Studio, Periscope Data, ThoughtSpot, SAP, Google Data Studio, Periscope Data, ThoughtSpot

DATA ANALYST PLATFORMS
Microsoft, Pentaho, Alteryx, Mode, Datameer, Digital Reasoning, Endor, Power BI, Attivo, Incorta, Guavus, Ascend.io, Switchboard, Obviously.ai, Airtable

AUGMENTED ANALYTICS
ThoughtSpot, Anodot, Outlier, Narrative Science, Facet, Macheye, Cliff.ai

DATA CATALOG AND DISCOVERY
Metaphor, Atlan, Data.world, Sternna, Select Star, Secoda, Castor, SQL

METRICS STORE
GoodData, Trace, Supergrain, Solarwinds, Loggly, Kibana, Logz.io, Logdna, Coralogix, LogRhythm, Observe

LOG ANALYTICS
Splunk, Sumologic, Google Cloud Logging, Solarwinds, Loggly, Kibana, Logz.io, Logdna, Coralogix, LogRhythm, Observe

QUERY ENGINE
Dremio, Starburst, Ahana, Amazon Athena, Varada, Maana, Quickwit, Chaossearch

SEARCH
Elasticsearch, Amazon Kendra, Oracle Endeca, Amazon CloudSearch, Azure Cognitive Services, Algolia, Coveo, Sinequa, Lucidworks, Swifttype, Attivo, Exalead, Alphasense, Omni.us

MACHINE LEARNING & ARTIFICIAL INTELLIGENCE

DATA SCIENCE NOTEBOOKS
JupyterLab, Binder, Colab, SaturnCloud, Google Cloud, Amazon SageMaker, Azure Notebooks, Deepnote, Nextjournal, Count, COCALC, Curvenote, Hex, Notable

DATA SCIENCE PLATFORMS
IBM Watson Studio, Oracle Data Science Platform, Rapidminer, Palantir, SAS, Tibco, Anaconda, Altair, KNIME, MathWorks

ML PLATFORMS
Databricks, DataRobot, Dataiku, Domino, H2O.ai, Amazon SageMaker, Azure Machine Learning, ABACUS.AI, Zilliz, Smarlet, Pachyderm, OctoML, Iguazio, Stradigm, dotData, Datmo, Spell, Saagie, Obviously.ai

DATA GENERATION & LABELING
Amazon Mechanical Turk, Hive, Scale, Upwork, Appen, Unity, Lionbridge, Labelbox, Super AI, SuperAnnotate, Kili Technology

MODEL BUILDING
Weights & Biases, Fiddler, Determined AI, Element, Aim, Aporia, SAS, Aquarium, SIGOPT, Fal.ai, Partners & Labs

FEATURE STORE
Tecton, Hopworks, Google Cloud, Rasgo, StreamSQL, Feast, Bytehub, Fal.ai, Partners & Labs

DEPLOYMENT & PRODUCTION
Amazon SageMaker, Databricks, Verta, Cortex, Selldown, Cnvr, Io, Benthos, Whylabs

MODEL MONITORING & OBSERVABILITY
Arthur, Evidently AI, Truera, Arize, Whylabs

COMPUTER VISION
Microsoft Azure, Cloud Vision API, Amazon Rekognition, Amazon Transcribe, Amazon Polly, Amazon Transcribe, Amazon Polly, Amazon Transcribe, Amazon Polly

SPEECH
Siri, Amazon Alexa, Amazon Polly, Amazon Transcribe, Amazon Polly, Amazon Transcribe, Amazon Polly

NLP
Google Natural Language API, Amazon Translate, Amazon Comprehend, Wolfman Alpha, Hugging Face, PRIMER, Mobvoi, RASA, SMARTLING, Semantic Machines, Unbabel, Rephrase.ai, Vocallid

SYNTHETIC MEDIA
DeepBrain AI, Soul Machines, AI Foundation, D-ID, Synthesia, Descript, Reface, Neosapience, Supertone, EmbodyMe, Rephrase.ai, Vocallid

HORIZONTAL AI
IBM Watson, OpenAI, DeepMind, Voyager Labs, CognitiveScale, Vicarious, Numenta, NEAR, Narologics, Petuum, Curious AI, Blue Vision, OSARO, Affectiva, Paradigm, Pectarion, Neural Magic

GPU DBS & CLOUD
Kinetic, Paperspace, Scream, Databricks, Intel Fusion, Wave, Azure, Blazir, Floydhub

AI HARDWARE
Google TPU, ARM, Intel AI, NVIDIA, IBM Power Systems, Graphcore, Intel Fusion, Wave, Azure, Blazir, Floydhub

APPLICATIONS - ENTERPRISE

SALES
Clari, Aiviso, Clearbit, Tact.ai, Collective, Fusemachines, Enigma, Headsup

MARKETING - B2B
App Annie, Sense, Tubular, Demandbase

MARKETING - B2C
Google Analytics, Tealium, ActionIQ, Segment, Mixpanel, Amplitude, Simon, Attentive, Mparticle, ContentSquare, Active Campaign, Amperity, Bloomreach, Zeta, Bluecore, Invoca, Braze, Persado, Klaviyo, Lytics, Signpost

CUSTOMER EXPERIENCE / SERVICE
Qualtrics, SurveyMonkey, UserTesting, Clarabridge, Medallia, Zendesk, Amplitude, Freshdesk, Gainsight, Pendo, HEAR, Watson Assistant, Dialogflow, LivePerson, Intercom, Drift, ASAPP, Ada, Afniti, Netomi, CallDesk, Aircall, Eureka, Talla, Frame AI, BryterCX, Cresta, Observe.ai, Verbit, Sprinklr, Yellow.ai, Moengage

HUMAN CAPITAL
HireVue, Symetrics, Textio, IBM, Mya, eRE, Wade & Wendy, Beamy, Entelo, ZipRecruiter

LEGAL
Ravel, Disco, ContractPodex, Kira, Overlaw, Ironclad, Relativity, Crossbeam, Data Republic, Infocsum, Securiti.ai

REGTECH & COMPLIANCE
BigID, Tessian, Comply Advantage, OneTrust, Ethyca, Securiti.ai, Pigment

FINANCE
Anaplan, Zuora, SAP, S/4HANA, Tradeshift, Pilot, Digits, Appzen, Oracle Netsuite, NetSuite, Pigment

AUTOMATION & RPA
UiPath, Celonis, Zinner, Hyperlicance, Blueprints, Workfusion, Workato, Eigen, Catalytic, KRYON, Antworks, Green, Fortes, Highdms, Electric, Instabase, Novworks, Alkymi, Tonkean

SECURITY
Tanium, Blackberry Spark, Zscaler, StackPath, Illumio, Forter, Sift, Riskified, Feedzai, DataVisor, Pandrap, Riskrecon, Anomali, Recorded Future, Shield AI, Sparkognition, Cyberason, Darktrace, ThreatMetrix, Vectra, Socrate, Cloudflare, Exabeam, Obsidian, SentinelOne, Prisma, Bluehexagon, Akonius, Guarddog, Armitage, CyberAngel, Privitar, Netskope, Code42, Snyk

ADVERTISING
Xandr, MediaMath, Criteo, IAS, Oracle Moat, Albert, Gumgum, Clippier, TheTradeDesk

EDUCATION
Liluisuo, 猿辅导, Knewton, Geclara, Skyline, Spacemaker, Geophy

REAL ESTATE
Redfin, VTS, Opndoor, Orchard, Reonomy, Skyline, Spacemaker, Geophy

GOVT & INTELLIGENCE
Palantir, OpenGov, Dataminr, Mark43, Anduril, Quid, FiscalNote, PRIMER, Streetlight Data

COMMERCE
Stitch Fix, Shein, Faire, Grabango, Upstart, 100Credit, MoneyLion, SoFi, TrueAccord

FINANCE - LENDING
Affirm, Monedo, Zest, Upgrade, ClearBank, Upstart, 100Credit, MoneyLion, SoFi, TrueAccord

INSURANCE
Root, Metromile, Lemonade, Guidewire, Shift Technology, CAPE, Evolution, Tractable, Zelus, Zesty.ai

HEALTHCARE
Flatiron, Kyruus, Metabota, Babylon, 3D Med, PathAI, Tempus, Patientsight, Lytco, AICure, LinkDoc, Olive, Imago, Kambiant, Paige, Health, Innovacor, Lumata, Spring Health, The Human Genome Project, Genentech, Arterys, Ezra, Caption Health, iMAGEN, Zebra, Abacus Insights, Clover Health, LeantaaS, Mindstrong, Zymgen, Benching, Zebra, Color, Sophia, Benvolent AI, Verily, DNAnexus, Freedomia, Alameda, Proton, NIO, Optimus, GT, Nexar, Kodiak, Moovit, Blaize, Omni, Perceptive Automata, Esoterica, Recursion, ConcertAI, Ezra, Caption Health, iMAGEN, Zebra, Abacus Insights, Clover Health, LeantaaS, Mindstrong, Zymgen, Benching, Zebra, Color, Sophia, Benvolent AI, Verily, DNAnexus, Freedomia, Alameda, Proton, NIO, Optimus, GT, Nexar, Kodiak, Moovit, Blaize, Omni, Perceptive Automata, Esoterica, Recursion, ConcertAI

LIFE SCIENCES
Zymgen, Benching, Zebra, Color, Sophia, Benvolent AI, Verily, DNAnexus, Freedomia, Alameda, Proton, NIO, Optimus, GT, Nexar, Kodiak, Moovit, Blaize, Omni, Perceptive Automata, Esoterica, Recursion, ConcertAI

TRANSPORTATION
Uber, Tesla, Cruise, Nuro, Aptiv, Cambridge, Aurora, Nauto, Farmers, Granular, Blue River, Taranis, Covariant, Beyond Limits, Duetto, Nextmv

AGRICULTURE
John Deere, AVEVA, Siemens, ByteDance, Uptake, Bright Machines, Predix, Stem, Amper, Verispace, Tachyus, Alice, Verispace, Second Spectrum, Built, Beyond Limits, Duetto, Nextmv

INDUSTRIAL
AVEVA, Siemens, ByteDance, Uptake, Bright Machines, Predix, Stem, Amper, Verispace, Tachyus, Alice, Verispace, Second Spectrum, Built, Beyond Limits, Duetto, Nextmv

OTHER
ByteDance, Stem, Amper, Verispace, Tachyus, Alice, Verispace, Second Spectrum, Built, Beyond Limits, Duetto, Nextmv

OPEN SOURCE

FRAMEWORKS
Spark, Flink, YARN, Tez, Kubernetes, Mesos, Doctor, CDDAP, Red Hat, Helix

FORMAT
Iceberg, Parquet, Avro, Arrow, Delta Lake

QUERY / DATA FLOW
Spark SQL, Presto, Trino, SLAMData, Sings, InfluxDB, Druid, Dataportal, SciDB, Cloud Spanner, Riak, Ckan

DATA ACCESS
Uber Databook, Amundsen, Magda

DATABASES
MySQL, MongoDB, Redis, Cockroach Labs, MariaDB, InfluxDB, Presto, Druid, Dataportal, SciDB, Cloud Spanner, Riak, Ckan

ORCHESTRATION
Apache Airflow, Prefect, Dagster, Flyte, Metaflow, Kedro, Luigi

INFRA-STRUCTURE
Kubernetes, Mesos, Argo

DATA OPS
Marquez, Great Expectations, Open Lineage, LakeFS, Project Nessie

STREAMING & MESSAGING
Spark Streaming, Kafka, Beam, Pulsar, Flink, Storm, NiFi, Apache RocketMQ, Samza

STAT TOOLS & LANGUAGES
Python, Scala, R, Julia, Pandas, SciPy, Studio

ML OPS & INFRA
Miflow, Kubeflow, MLeap, Seldon, KubeFlow

AI / MACHINE LEARNING / DEEP LEARNING
TensorFlow, PyTorch, OpenCV, Keras, BERT, XGBoost, Caffe, Microsoft Cognitive Tools, OpenAI, PyTorch Lightning, Theano, Microsoft Cognitive Tools, OpenAI, PyTorch Lightning, Theano

SEARCH
Elasticsearch, Solr, Lucene, Sphinx, Toishi Search

LOGGING & MONITORING
Elasticsearch, Kibana, Sentry, Logstash, Prometheus, Fluentd, Fluentbit, Grafana, Vector

VISUALIZATION
Superset, Matplotlib, Metabase, Redash, TensorBoard, Seaborn, Bokeh, Anacoda

COLLABORATION
Beaker, Jupyter, Zepplin

SECURITY
Apache Ranger, Knox, Sentry, SCCUTILIO, Snyk

DATA SOURCES & APIs

DATA MARKETPLACES & DISCOVERY
AWS Data Exchange, Snowflake Data Exchange, DAWEX, Expiorium, DataWorld, Narrative, Google Dataset Search

FINANCIAL & ECONOMIC DATA
Bloomberg, Thomson Reuters, Dow Jones, Quandl, S&P Capital IQ, Plaid, CB Insights, Second Step, Investnet, The Motley Fool, StockTwits, Xignite, Thinkum, Earnest, Predata, MX, Tink, SmartNews, Truelayer, Channuis, Kaiko, Coinmetrics

AIR / SPACE / SEA
Orbital Insight, Airrobotics, Spire, Windward, MarineTraffic, RS Metrics, ExoLabs, 卫星位置, Synspecive

PEOPLE / ENTITIES
Zoominfo, Acxiom, Experian, Effilion, InsideView, Brandwatch, Quantcast, Basis, SafeGraph, Demyst, Melissa, Signal

LOCATION INTELLIGENCE
Foursquare, Mapbox, Sense360, Pitney Bowes, PlaceIQ, Esri, Carto, Radar, Mapillary, Cuebiq, OpenStreetMap

OTHER
Data.gov, Berkeley DeepDrive, Imagenet, Labelbox, Veritone, Comscore

DATA RESOURCES

DATA SERVICES
QuantumBlack, Booz | Allen | Hamilton, Kaggle, Electrifi, Fractal, EXL

INCUBATORS & SCHOOLS
Pluralsight, General Assembly, DataCamp, DataElite, Galvanize, Metis, Insight, The Data Incubator

RESEARCH
OpenAI, Google Research, Facebook Research, Allen Institute for Artificial Intelligence, Anthropic, Salk, ETL