

1 OrientDB

OrientDB is a Multi-Model database with Distributed NoSQL engine, which can work with Graph, Document, Key-Value, GeoSpatial and Reactive models. User Domains and any data search which supports the Object Oriented concepts for modeling can be implemented with this technology. Each model is not just a layer, but coexists in one single engine. With OrientDB Teleporter you can easily sync (or migrate) your relational database from Oracle, SQLServer, MySQL and PostgreSQL to OrientDB [1]. OrientDB is perfect and scale up by adding more server instances with zero-configuration [2].

2 Redis

Redis is BSD licensed, an open source technology, which has in-memory data structure store, and used as a database, cache and message broker. strings, hashes, lists, sets, sorted sets with range queries, bitmaps, hyperloglogs and geospatial indexes with radius queries are supported data structures. Redis has built-in replication, Lua scripting, LRU eviction, transactions and different levels of on-disk persistence, and provides high availability via Redis Sentinel and automatic partitioning with Redis Cluster [6]. Few of the OSI approved modules are neural-redis, RediSearch, redisSQL, ReJSON, redis-cell, Redis Graph, Redis-ML, cthulhu, rebloom [7].

3 PyTorch

PyTorch is a open source python package that has high level features of Tensor computation (like numpy) with strong GPU acceleration and Deep Neural Networks built on a tape-based autograd system. PyTorch is a library has below components/ packages available on the website as: torch (a Tensor library like NumPy, with strong GPU support), torch.autograd (a tape based automatic differentiation library that supports all differentiable Tensor operations in torch), torch.nn (a neural networks library deeply integrated with autograd designed for maximum flexibility), torch.optim (an optimization package to be used with torch.nn with standard optimization methods such as SGD, RMSProp, LBFGS, Adam etc.), torch.multiprocessing (python multiprocessing, but with magical memory sharing of torch Tensors across processes. Useful for data loading and hogwild training), torch.utils (DataLoader, Trainer and other utility functions for convenience), torch.nn.functional (legacy code that has been ported over from torch for backward compatibility reasons) [3].

4 TensorFlow

TensorFlow is an open source providing flexible architecture of using a single API for deploying computation to one or more CPUs and GPUs in a desktop,

server or mobile devices. It facilitates with software library for numerical computation using data flow graphs. Nodes in the graph represent mathematical operations, while the graph edges represent the multidimensional data arrays (tensors) communicated between them. TensorFlow was originally developed by researchers and engineers working on the Google Brain Team within Google's Machine Intelligence research organization for the purposes of conducting machine learning and deep neural networks research [8].

5 RabbitMQ

RabbitMQ is a open source message broker. It can support and be implemented with multiple messaging protocols. RabbitMQ can be deployed in distributed and federated configurations to meet high-scale, high-availability requirements. RabbitMQ can runs on many operating systems and cloud environments, and provides a wide range of developer tools for most popular languages. This technology is lightweight and easy to deploy on premises and in the cloud.[4] It was originally implemented Advance Message Queuing Protocol(AMQP) and has been extended to support Streaming Text Oriented Messaging Protocol (STOMP) and other protocols [5].

References

- [1] OrientDB. Orientdb. Web. URL: <http://orientdb.com/>.
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- [6] Redis. Introduction to redis. Web. URL: <https://redis.io/>.
- [7] Redis. Redis modules. Web. URL: <https://redis.io/modules>.
- [8] TensorFlow. About tensorflow. Web. URL: <https://www.tensorflow.org/>.