FATE Development Committee Meeting

2022/4/21

Agenda (April 21)

- FATE / KubeFATE 1.8 released
- FATE 1.9 Feature List
- KubeFATE 1.9 Feature List
- FATE 1.9 Feature Discussion
    - Cross platform interoperability
    - Life Cycle Management
    - Hardware acceleration
    - Upgrading tools
    - PSI Modular FATE
    - Blockchain integration
- Technical articles for community

FATE / KubeFATE v1.8.0 released

- https://github.com/FederatedAI/FATE/releases/tag/v1.8.0
- https://github.com/FederatedAI/KubeFATE/releases/tag/v1.8.0

FATE v1.9.0 Feature List

> FATE-Arch

- Add better support for upgrading from older major versions
- Support Python version 3.8+
- Support interconnection between different versions
- Support interconnection between eggroll , spark, standalone backend
- Support for heterogeneous acceleration architecture **(Maybe)**

> FATE-FederatedML

- PSI Supports ECDH Protocol
- PSI Support Exact Cardinality Estimation
- Support specifying columns as intersection columns
- Anonymous Feature Names Generation Optimization
- Hetero Feature Selection Support Selection By Anonymous Feature Names
- Hetero-NN Support PyTorch Backend
- Support Multi-Host In Hetero-NN
- Add Label Protection enhancement Strategy In Hetero-NN
- export PPML model for guest-single-y case
- Accelerated Paillier cryptosystem scheme on Intel AVX512/IFMA

https://github.com/orgs/FederatedAI/projects/9

> FATE-Flow

- Added site dataset permission control
- Reader component support feature anonymity
- Added api data storage type
- Add the api reader component to get the specified feature data
- fate flow support HA
- upload and table bind support specifying the id column
- fate client and pipeline optimization

https://github.com/orgs/FederatedAI/projects/10/

> FATE-Board

- Optimization of timer pause caused by browser label switchin
- Optimize UI component

https://github.com/orgs/FederatedAI/projects/11

https://github.com/FederatedAI/FATE-Community/pull/42

KubeFATE v1.9.0 Feature List

Project Dashboard:

https://github.com/orgs/FederatedAI/projects/5/views/1

Details:

https://github.com/FederatedAI/FATE-Community/pull/43

FATE 1.9 Feature Discussion

- Cross platform interoperability
- Life Cycle Management
- Modeling Visualization (https://github.com/FederatedAI/FATE/issues/3893)
- Hardware acceleration
  - Intel acceleration for HE (https://github.com/FederatedAI/FATE/issues/3909)
  - Clustar GPU/FPGA acceleration
    - (https://github.com/FederatedAI/FATE/issues/3811 proposal: https://github.com/FederatedAI/FATE-Community/pull/33)
- Upgrading tools
  - https://github.com/FederatedAI/FATE/issues/3803 https://github.com/FederatedAI/KubeFATE/issues/556
- PSI-modular FATE
  - https://github.com/FederatedAI/FATE/issues/3854 https://github.com/FederatedAI/KubeFATE/issues/581
- Exchange authentication (https://github.com/FederatedAI/FATE/issues/3929)
- Blockchain integration (https://github.com/FederatedAI/FATE/issues/3868)
- Others

- Timeline
  - Requirements gathering 4/22
  - Development start 4/22
  - Release 8/15