

# ML Workflow & InterOp Committee

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## Overview

The LF AI Governing Board recommended having a reference ML workflow / stack, and showcasing where current LF AI hosted projects fall. The idea is to have a reference architecture and to allow us to identify gaps in our project portfolio so we can focus on project recruitment in areas that we need most, leading us to provide a reference implementation using LF AI hosted projects.

## Mailing List

Please subscribe to the ML Workflow mailing list: <https://lists.lfai.foundation/g/mlworkflow-committee>

## Meetings

Every 4 weeks on Thursday, 10am EST right after the TAC meeting.

To participate in meetings, please join the mailing list and subscribe to the group calendar: [ML Workflow - Community Meetings & Calendar](#)

Zoom: <https://zoom.us/j/9918615568>

### Agenda for 06/04/2020 meeting:

1. Start with Adlik project on interop
  - a. document: [https://docs.google.com/document/d/1\\_e7Ty9VvEXvgS-4YSuBbER8VA4\\_vnX6AtZE1bOw\\_Efc/edit?usp=sharing](https://docs.google.com/document/d/1_e7Ty9VvEXvgS-4YSuBbER8VA4_vnX6AtZE1bOw_Efc/edit?usp=sharing)
2. Map new project to ML workflow stack

### Agenda for 05/07/2020 meeting:

1. Kickstart of the interop work, identify top 1-3 use cases, champions that volunteer to lead the use case discussion, and milestones
  - a. document: [https://docs.google.com/document/d/1\\_e7Ty9VvEXvgS-4YSuBbER8VA4\\_vnX6AtZE1bOw\\_Efc/edit?usp=sharing](https://docs.google.com/document/d/1_e7Ty9VvEXvgS-4YSuBbER8VA4_vnX6AtZE1bOw_Efc/edit?usp=sharing)
2. Map new project to ML workflow stack

## Past Meetings -

**Meeting Content (minutes / recording / slides / other):**

Date	Minutes
09 Apr 2020	<p>Call was recorded, this is <a href="#">the record</a>. And this is <a href="#">the chat</a>.</p> <ul style="list-style-type: none"><li>• We agreed to change the name of the sub committee from ML Workflow Committee to ML Workflow &amp; InterOp Committee (MWI)</li><li>• <a href="#">Zhipeng (Howard) Huang</a> shared the <a href="#">slides of the InterOp Proposal</a> and we agreed to move forward with the plan</li><li>• The first use case we agreed on will be Federated Learning</li><li>• We will create a slack channel for the MWI Committee</li><li>• <a href="#">Zhipeng (Howard) Huang</a> will lead the WMI Committee from now on as <a href="#">Ofer Hermoni</a> is stepping down</li></ul>

<p>12 Mar 2020</p>	<ul style="list-style-type: none"> <li>ML Workflow stack (<a href="#">updated deck</a>): <ul style="list-style-type: none"> <li><a href="#">Ofar Hermoni</a> shared the work was done off line with Marquez team to map it to the Data Consistency block</li> <li>Jnu Gu of Zilliz provided the mapping to the Serving box</li> </ul> </li> <li>Interoperability proposal (<a href="#">see deck</a>) <ul style="list-style-type: none"> <li>Howard Huang of Huawei presented a proposal for interoperability between the different LFAI projects and also external projects</li> <li>We had a discussion if there is a need for a real interoperability effort or maybe a standard will be enough? We agreed that there is a need for a real interoperability effort</li> <li>Next steps: <ul style="list-style-type: none"> <li>In the next ML Workflow meeting Howard will present a plan for the effort</li> <li>In one of the next TAC meetings Howard will share the proposal with the broader team</li> </ul> </li> </ul> </li> </ul>
<p>13 Feb 2020</p>	<p>Call was recorded, this is <a href="#">the record</a>. And this is <a href="#">the chat</a>.</p> <p>In the meeting we covered the following:</p> <ul style="list-style-type: none"> <li>We reviewed the current version of the ML Workflow, and tried to identify the correct blocks for the two new projects (Milvus and Marquez) <ul style="list-style-type: none"> <li>Jun of Zilliz will think about that for Milvus</li> <li><a href="#">Ofar Hermoni</a> will approach the WeWork team to identify the right location for Marquez</li> </ul> </li> <li>Project integration: <ul style="list-style-type: none"> <li><a href="#">Natarajan Subramanian</a> covered the status of the collaboration / integration between Acumos and Angel, and Acumos and Adlik. Due to the Corona epidemic everything is slowed down currently in China</li> <li><a href="#">Natarajan Subramanian</a> also mentioned the work Acumos is doing with AI360. Currently in discussions phase</li> </ul> </li> <li><a href="#">Jessica Kim</a> shared the status of the integration infrastructure Huawei has in Hong Kong, and the plan to add more locations based on Tencent public cloud - both in China and Canada</li> <li><a href="#">Jessica Kim</a> suggested to leverage the integrations and the ML Workflow activity as part of the outreach activity</li> </ul>
<p>16 Jan 2020</p>	<p>In this meeting we had a team from RedHat to present ODH (Open Data Hub)</p> <ul style="list-style-type: none"> <li>In this meeting we started recording our calls. The <a href="#">Zoom recording can be find here</a>. The <a href="#">chat here</a></li> <li>Deck presented is available <a href="#">here</a></li> <li><a href="#">Ofar Hermoni</a> gave a background about the ML Workflow working group goals and activity</li> <li>Redhat team provided a <a href="#">presentation about ODH</a></li> <li>Apparently there are many overlaps between the two initiatives</li> <li>Next steps <ul style="list-style-type: none"> <li>Invite the ODH team to present to the TAC</li> <li>A representative of the TAC will join one of the ODH meetings to present LFAI and ML Workflow</li> </ul> </li> </ul>
<p>05 Dec 2019</p>	<p>Agenda for the meeting:</p> <ol style="list-style-type: none"> <li>Update about the integration between Acumos and other LFAI projects - Angel and ONNX</li> <li>Review the latest version of the ML Workflow slides and map</li> <li>Discuss our focus going forward</li> </ol> <p>Agenda for the meeting:</p> <p>Minutes:</p> <ul style="list-style-type: none"> <li>We have now a dedicated mailing list, please make sure you register so you can get all the emails and invites</li> <li><a href="#">Ofar Hermoni</a> shortly explained to goals of the committee</li> <li>We mapped the new project Sparklyr on the ML stack, and <a href="#">updated the deck</a></li> <li><a href="#">Natarajan Subramanian</a> and <a href="#">Fitz Wang</a> updated regarding the integration between Angel and Acumos - the technical teams are working together on the integration</li> <li><a href="#">Natarajan Subramanian</a> updated re the status of the integration between Acumos and ONNX. <a href="#">Jim Spohrer</a> said he will dedicate more resources to help with that</li> <li>Logistics: <ul style="list-style-type: none"> <li>Everyone should register to the mailing list in order to get the invites</li> <li>Meetings will be scheduled for once in 4 weeks on Thursdays 10am EST (immediately after the TAC call)</li> </ul> </li> <li>We discussed the goals of this committee: <ul style="list-style-type: none"> <li>The integration between the different projects will be done by the technical teams of the projects. This committee will support that and identify potential collaboration opportunities and identify resource gaps</li> </ul> </li> <li><a href="#">Jim Spohrer</a> suggested to work with the Red Hat team on the <a href="#">Open Data Hub</a> initiative. He will invite Sherard Griffin to talk in the next meeting</li> <li><a href="#">Jim Spohrer</a> encourages collaboration and integration to IBM AI Fairness framework, it will help to convince IBM to contribute this framework of projects to LFAI</li> </ul>

05 Sep 2019	<ul style="list-style-type: none"> <li>Goals defined for the meeting: <ul style="list-style-type: none"> <li>Reevaluate the ML Workflow stack according to feedback we got</li> <li>Work on integration between different LF AI projects</li> </ul> </li> <li>Ofer Hermoni shared that there is a lot of interest from the community (LF AI members and the broader community), and many joined this effort, we have 18 people representing 8 companies!</li> <li>evaluate the ML Workflow stack (<a href="#">see here updated deck</a>): <ul style="list-style-type: none"> <li>Patrick Fu (from Gemini Open Cloud) shared their view on the ML Pipeline (see slide 2 on the <a href="#">deck</a>), main difference was the data consistency layer - we added it to our stack</li> <li>Ofer Hermoni mentioned that Fitz Wang showed in OSS that Angel supports Feature Engineering as well - we added that to the stack</li> <li>Next step - update existing projects on the new stack</li> </ul> </li> <li>Integration between different projects: <ul style="list-style-type: none"> <li>Natarajan Subramanian shared with the team the work we are doing regarding the integration between Acumos and Angel and between Acumos and Horovod</li> <li>Next step - set a "1:1" session dedicated to the integration between Angel and Acumos (Thursday September 19th)</li> </ul> </li> <li>More next steps <ul style="list-style-type: none"> <li>Build a discussion section on the ML Workflow web page (<a href="#">brahim Haddad</a> / <a href="#">Jacqueline Serafin</a>)</li> </ul> </li> </ul>
03 Jun 2019	<ul style="list-style-type: none"> <li>We farther refined the <a href="#">presentation</a> and discussed next steps for this group</li> <li>IBM presented some of the internal work they are doing around AI open source</li> </ul>
23 May 2019	<ul style="list-style-type: none"> <li>We discussed the different open source projects and mapped them to our stack. See the <a href="#">results here</a></li> <li>Next week Animesh will present a framework IBM is building and we will discuss how it can be beneficial to create collaboration between different LF AI projects</li> <li>We will also prepare content for the next TAC meeting in which we will review our progress</li> </ul>
16 May 2019	<ul style="list-style-type: none"> <li>Animesh from IBM joined reviewed a deck with IBM AI open source activities (<a href="#">this slide that summarizes it</a>)</li> </ul>
02 May 2019	<ul style="list-style-type: none"> <li>We defined our goal, and started to review the stack. This is <a href="#">the result</a></li> </ul>

## Participants (archive as we moved to use the mailing list)

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