Meeting of the Technical Advisory Council (TAC)

February 11, 2021
Anti-Trust Policy

- Linux Foundation meetings involve participation by industry competitors, and it is the intention of the Linux Foundation to conduct all of its activities in accordance with applicable antitrust and competition laws. It is therefore extremely important that attendees adhere to meeting agendas, and be aware of, and not participate in, any activities that are prohibited under applicable US state, federal or foreign antitrust and competition laws.

- Examples of types of actions that are prohibited at Linux Foundation meetings and in connection with Linux Foundation activities are described in the Linux Foundation Antitrust Policy available at http://www.linuxfoundation.org/antitrust-policy. If you have questions about these matters, please contact your company counsel, or if you are a member of the Linux Foundation, feel free to contact Andrew Updegrove of the firm of Gesmer Undergone LLP, which provides legal counsel to the Linux Foundation.
Recording of Calls

Reminder:

TAC calls are recorded and available for viewing on the TAC Wiki
Reminder: LF AI & Data Useful Links

- **Web site:** [lfaidata.foundation](https://lfaidata.foundation)
- **Wiki:** [wiki.lfaidata.foundation](https://wiki.lfaidata.foundation)
- **GitHub:** [github.com/lfaidata](https://github.com/lfaidata)
- **Landscape:** [https://landscape.lfaidata.foundation](https://landscape.lfaidata.foundation) or [https://lfaidata.foundation](https://lfaidata.foundation)
- **Mail Lists:** [https://lists.lfaidata.foundation](https://lists.lfaidata.foundation)
- **Slack:** [https://slack.lfaidata.foundation](https://slack.lfaidata.foundation)

- **LF AI Logos:** [https://github.com/lfaidata/artwork/tree/master/lfaidata](https://github.com/lfaidata/artwork/tree/master/lfaidata)
- **LF AI Presentation Template:** [https://drive.google.com/file/d/1eiDNJvXCqSZHT4Zk_czASlzn2GTBRZk2/view?usp=sharing](https://drive.google.com/file/d/1eiDNJvXCqSZHT4Zk_czASlzn2GTBRZk2/view?usp=sharing)

- **Events Page on LF AI Website:** [https://lfaidata.foundation/events/](https://lfaidata.foundation/events/)
- **Event Wiki Pages:** [https://wiki.lfaidata.foundation/display/DL/LF+AI+Data+Foundation+Events](https://wiki.lfaidata.foundation/display/DL/LF+AI+Data+Foundation+Events)
Agenda

› Roll Call (2 mins) - welcome Pyro!
› Approval of Minutes (2 mins)

› Invited Presentation (40 minutes)
  › Egeria CI - Build and Release (Nigel Jones (Egeria, IBM))
› Invited Presentation (15 minutes)
  › Mentorships (John Mertic (LF))

› LF AI General Updates (2 minutes)
› Open Discussion (2 minutes)
<table>
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<th>Contact Person</th>
<th>Email</th>
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<td>Ericsson</td>
<td>Rani Yadav-Ranjan*</td>
<td><a href="mailto:rani.yadav-ranjan@ericsson.com">rani.yadav-ranjan@ericsson.com</a></td>
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<td>IBM</td>
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<td><a href="mailto:malaika@us.ibm.com">malaika@us.ibm.com</a></td>
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<td><a href="mailto:jonne.soininen@nokia.com">jonne.soininen@nokia.com</a></td>
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<td>SAS</td>
<td>Nancy Rausch</td>
<td><a href="mailto:nancy.rausch@sas.com">nancy.rausch@sas.com</a></td>
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<td>Tech Mahindra</td>
<td>Nikunj Nirmal</td>
<td><a href="mailto:nn006444@techmahindra.com">nn006444@techmahindra.com</a></td>
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<td>Jun Gu</td>
<td><a href="mailto:jun.gu@zilliz.com">jun.gu@zilliz.com</a></td>
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<td><a href="mailto:meng.wei2@zte.com.cn">meng.wei2@zte.com.cn</a></td>
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<td>Acumos</td>
<td>Nat Subramanian</td>
<td><a href="mailto:natarajan.subramanian@techmahindra.com">natarajan.subramanian@techmahindra.com</a></td>
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<td>Egeria</td>
<td>Mandy Chessell</td>
<td><a href="mailto:mandy_chessell@uk.ibm.com">mandy_chessell@uk.ibm.com</a></td>
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<td>Horovod</td>
<td>Travis Addair*</td>
<td><a href="mailto:taddair@uber.com">taddair@uber.com</a></td>
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<tr>
<td>ONNX</td>
<td>Jim Spohrer (Chair of TAC)</td>
<td><a href="mailto:spohrer@us.ibm.com">spohrer@us.ibm.com</a></td>
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<td>Pyro</td>
<td>Fritz Obermeyer*</td>
<td><a href="mailto:fritz.obermeyer@gmail.com">fritz.obermeyer@gmail.com</a></td>
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* = still need backup specified on wiki
Approval of January 28th, 2021 Minutes

Draft minutes from the January 28th TAC call were previously distributed to the TAC members via the mailing list

**Proposed Resolution:**

› That the minutes of the January 28th meeting of the Technical Advisory Council of the LF AI & Data Foundation are hereby approved.
Invited Presentation -
Egeria CI - Build and Release

Nigel Jones (Egeria Project, IBM)
Egeria – Build & Release

Nigel Jones – Egeria Maintainer (https://github.com/planetf1) – IBM
2021-02-11
Egeria – codebase @ https://github.com/odpi/egeria

7.53M Lines Of Code Changed

16.78M Lines Of Code Changed

3.38K Commits
32 Contributors

8.36K Commits
57 Contributors

1 No Of Sub Projects
7 Repositories

1 No Of Sub Projects
8 Repositories

Last 12 months

Total
## Egeria Repositories

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CI/CD Progression

Jenkins
- Dedicated LF managed
- Sonar
- Nexus IQ
- Complex for dev team to modify

Azure Pipelines
- More flexible – dev team can extend
- Docker images (still in use)
- more repos
- Supporting monthly releases
- Sonar (still in use)
- Nexus IQ (still in use)

Github Actions
- Rapid additions ie to PR Tests
- Dependabot
- Artifacts
- Added UI & connector builds
- Very developer friendly & visible
- Examples, Community, ecosystem
- Faster
Development pipelines

**PR**
- maven (Java 8) & gradle (Java 8, Java 11) on Ubuntu
- Unit tests & FVTs
- CodeQL code scanning – security issue detection
- Publish as artifact file
- DCO

**Merge**
- Docker images
- Publish maven snapshots
- Windows (slow....)
- Additional scanning – NexusIQ, Sonar

**Scheduled**
- Check doc links
- Monthly Dependabot scan for dependency updates (security/currency)
Release (as of Feb 2021)
February Challenge

https://jfrog.com/blog/into-the-sunset-bintray-jcenter-gocenter-and-chartcenter/
# In-progress & potential areas

## Repositories
- Consistency
- Contract – consumer/provider
- Versioning
- Aggregation/assembly
- Samples
- Demos
- Connectors
- Security

## Build
- Gradle
  - 2-3x clean
  - 100x incremental
  - Removes some maven limitations
- BOMs for consumers
- More PR checks
- Docker images for PR?
- Merge build to GitHub actions

## Test
- Notebooks
- CTS
- More UT/FVT
- K8s tests
- Cross-version tests
- Improve coverage
- Dynamic security testing
- Performance & scalability?

## Release
- Move to GitHub actions
- Automation
- Release notes – improve
- Reports
  - Javadoc
  - Coverage
  - …
- Publishing helm charts / k8s operator
- Publish npm for UI
To think about

1. Will we hit free limitations on GitHub actions?
2. Will we hit free limitations on DockerHub?
3. As we develop some longer running/larger tests we may need access to a hosted k8s environment. £$£$
4. Sharing best practice
Invited Presentation - Mentorships

John Mertic (Linux Foundation)
Invited Presentation - TBD - will do at a future time

Steven Winslow (Linux Foundation)
Why mentorships?

- For students, it helps them learn real-world software development skills and time management.
- For projects, it brings in new contributors that become maintainers with codebase experience.
- For members, it highlights up and coming talent to hire.
We generally see LF projects leverage these platforms
What is LFX Mentorships?

Part of the LFX platform, it provides tooling for attracting mentees and supporting mentorships.

Project providing the mentorship provides funding, but there is the opportunity to crowdfund to support mentorships.

Three mentorship terms, spring, summer, and fall, gives the project flexibility on timelines.

LF AI & DATA
Google Summer of Code

Summer program sponsored by Google for the past 16 years.

Open source organizations can apply to be a mentoring organization, and Google approves and sets a number of mentorships for each organization.

No cost to project, and provides a small stipend ($400 USD) per mentorship.

Deadline to apply is February 19, 2021
What to do if LF AI and Data wants to do this

1. Form a working group to manage mentorships
2. Get going on the platform
   - Apply to GSoC as an organization (if this path is of interest)
   - Add projects to LFX Mentorship that want to do mentorships (if this path is of interest).
3. Start a project ideas page where projects can list mentorship project ideas or link to issue list of mentorship ideas
   - Example:
4. Be ready for inbound interest!
5. Select final mentorships and mentees
LF AI & Data - General Updates
See the interactive landscape at l.lfai.foundation

The LF AI & Data landscape explores open source projects in Artificial Intelligence and Data and their respective sub-domains.
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<thead>
<tr>
<th>Months</th>
<th>Projects</th>
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<tr>
<td>Jan</td>
<td>16: Milvus (Zilliz)*</td>
</tr>
<tr>
<td>Feb</td>
<td>13: MLOps Work (LF CD)</td>
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<tr>
<td>Mar</td>
<td>27: Collective Knowledge (Coral Reef)</td>
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<tr>
<td>Apr</td>
<td>9: Trusted AI &amp; ML Workflow (LF)</td>
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<tr>
<td>May</td>
<td>7: Ludwig (Uber)*</td>
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<tr>
<td>Jun</td>
<td>23: Open Data Hub (Red Hat)</td>
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<td>Jul</td>
<td>16: Mindspore (Huawei)</td>
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<td>Aug</td>
<td>30: Amundsen (Lyft)*</td>
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<td>Sep</td>
<td>16: Delta (Didi)</td>
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<td>16: Horovod (Uber/LF)**</td>
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<tr>
<td>Oct</td>
<td>8: Fairness, Explainability, Robustness (LF)</td>
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<tr>
<td>Nov</td>
<td>22: OpenLineage (DataKins)</td>
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<td>22: IDA (IBM/Salesforce)</td>
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<td>Dec</td>
<td>5: DataPractices.Org (WorldData/LF)*</td>
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<td>5: Kubeflow-On-Prem (Google,Arrikto/Intel)</td>
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<td></td>
<td>19: OpenDS4All, DataPractices.Org, edX Ethical AI (LF)</td>
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<tr>
<td></td>
<td>17: TBD – Seldon Core (Seldon)*</td>
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<td>17: TBD – Pyro (Uber/LF)**</td>
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</table>

(****bold = graduate vote
**Italicics = invited project presentation

(Entity)* = incubating vote

2020 TAC Meetings Summary

12: NNStreamer (Samsung)*
26: ForestFlow (?)*
4: Trusted AI (AI for Good, Ambianic.ai, MAIEI)
18: Fairness, Explainability, Robustness (IBM)*
10: SOAJS (HeronTech)*
10: Delta (Didi)*
24: FEAST (Gojek)*
24: Egeria, (LF ODPi)**
24: OpenDS4All (ODPi)*
24: BI&AI Committee (ODPi)
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<tr>
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<th>Jan</th>
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<td>11: MARS (Aliabab)</td>
<td>11: Streams (IBM)</td>
<td>8: Adlik (ZTE)**</td>
<td>22: Kubeflow-On-Prem (Google, Arrikto, Intel)</td>
<td>?: Ray (Anyscale.io)</td>
<td>?: Common Knowledge (Code Reef)</td>
<td>?: KubeflowServing (Google, Arrikto, Seldon)</td>
<td>?: Kubeflow Pipeline (Google, Bloomberg)</td>
<td>?: Open Data Hub (Red Hat)</td>
<td>?: Vespa (Verizon Media)</td>
<td>?: SnapML (IBM)</td>
<td>?: PMML/PFA (DMG.org)</td>
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<td>28: Tentative: Verse (Seldon)</td>
<td>25: Flyte (Lyft)</td>
<td>?: Pachyderm (Pachyderm)</td>
<td>?: DataHub (LinkedIn)</td>
<td>?: Couler (Ant Financial)</td>
<td>?: KubeflowServing (Google, Arrikto, Seldon)</td>
<td>?: Kubeflow Pipeline (Google, Bloomberg)</td>
<td>?: Open Data Hub (Red Hat)</td>
<td>?: PMML/PFA (DMG.org)</td>
<td>?: Mindspore, Volcano (Huawei)</td>
<td>?: TransmorgrifAI (Salesforce)</td>
<td>?: AIMET (Qualcomm)</td>
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</table>

(Entitiy)* = incubating vote
**bold = graduate vote
*Italic* = invited project presentation
Getting to know the projects more
Data from November 23, 2020 – Stars and Contributors

Stars

Contributors

Horovod
ONNX
SparklyR
Milvus
Ludwig
Pyro
Angel
NNStreamer
Robustness
Amundsen
FEAST
Delta
Explainability
Fairness
Marquez
Egeria
Adlik
OpenDS4All
EDL
ForestFlow
SOAJS
Acumos

11K
2K
0.3K
0.2K
0.4K
3K
Looking to host a project with LF AI & Data

› Hosted project stages and life cycle: https://lfaidata.foundation/project-stages-and-lifecycle/

› Offered services for hosted projects: https://lfaidata.foundation/services-for-projects/

› Contact:
  Jim Spohrer (TAC Chair) and Ibrahim Haddad (ED, LF AI & Data)
Promoting Upcoming Project Releases

We promote project releases via a blog post and on LF AI & Data Twitter and/or LinkedIn social channels.

For links to details on upcoming releases for LF AI & Data hosted projects visit the Technical Project Releases wiki.

If you are an LF AI & Data hosted project and would like LF AI & Data to promote your release, reach out to pr@lfai.foundation to coordinate in advance (min 2 wks) of your expected release date.
Note on quorum

As LF AI & Data is growing, we now have 16 voting members on the TAC.

TAC representative - please ensure you attend the bi-weekly calls or email Jacqueline/Ibrahim to designate an alternate representative when you cannot make it.

We need to ensure quorum on the calls especially when we have items to vote on.
Updates from Outreach Committee
Upcoming Events

› Upcoming Events
  › Visit the LF AI & Data Events Calendar or the LF AI & Data 2021 Events wiki for a list of all events
  › To participate visit the LF AI & Data 2021 Events wiki page or email info@lfaidata.foundation

› Please consider holding virtual events

To discuss participation, please email events@lfaidata.foundation
Upcoming Events

https://lfaidata.foundation/events/

- March 24, 2021 - ONNX Community Virtual Meetup
  a. Wednesday @ 5:00 pm - 8:00 pm PT USA
     Thursday @ 8:00am - 11am China Time
     LF AI Day: ONNX Community Virtual Meetup – March 2021
     (Virtual - Free - Asia-friendly time – Host Ti Zhou - Baidu)

- Sept 29 - Oct 1, 2021 - OSS Global
  a. Mini-Summit, Booth, Track
LF AI PR/Comms

› Please follow LF AI & Data on Twitter & LinkedIn and help amplify news via your social networks - Please retweet and share!
  › Also watch for news updates via the tac-general mail list
  › View recent announcement on the LF AI & Data Blog

› Open call to publish project/committee updates or other relevant content on the LF AI & Data Blog

› To discuss more details on participation or upcoming announcements, please email pr@lfaidata.foundation
Call to Participate in Ongoing Efforts
Trusted AI

- **Leadership:** Animesh Singh (IBM), Souad Ouali (Orange), and Jeff Cao (Tencent)
- **Goal:** Create policies, guidelines, tooling and use cases by industry

- **Slack conversation channel:** #trusted-ai-committee
  https://lfaifoundation.slack.com/archives/CPS6Q1E8G
- **Github:**
  https://github.com/lfai/trusted-ai
- **Wiki:**
  https://wiki.lfai.foundation/display/DL/Trusted+AI+Committee
- **Email lists:**
  https://lists.lfaidata.foundation/g/trustedai-committee/
- **Next call:** Monthly alternating times
  https://wiki.lfai.foundation/pages/viewpage.action?pageId=12091895

ML Workflow & Interop

- **Leadership:** Huang “Howard” Zhipeng (Huawei)
- **Goal:** Define an ML Workflow and promote cross project integration

- **Slack conversation channel:** #ml-workflow
  https://lfaifoundation.slack.com/archives/C011V9VSMQR
- **Wiki:**
  https://wiki.lfai.foundation/pages/viewpage.action?pageId=10518537
- **Email lists:**
  https://lists.lfaidata.foundation/g/mlworkflow-committee/
- **Next call:** Monthly check calendar/slack
  https://wiki.lfai.foundation/pages/viewpage.action?pageId=18481242
BI & AI

Leadership:
Cupid Chan (Index Analytics)

Goal: Identify and share industry best practices that combine the speed of machine learning with human insights to create a new business intelligence and better strategic direction for your organization.

Slack conversations channel:
#bi-ai-committee
https://lfaifoundation.slack.com/archives/C01EK5ND073

Github:
https://github.com/odpi/bi-ai

Wiki:
https://wiki.lfaidata.foundation/pages/viewpage.action?pageId=35160417

Email lists:
https://lists.lfaidata.foundation/g/biai-discussion

Next call: Monthly community call TBD
Ongoing effort to create AI Ethics Training

Initial developed course by the LF: Ethics in AI and Big Data - published on edX platform:
https://www.edx.org/course/ethics-in-ai-and-big-data

The goal is to build 2 more modules and package all 3 as a professional certificate - a requirement for edX

› To participate: https://lists.lfaidata.foundation/g/aiethics-training
Upcoming TAC Meetings
Upcoming TAC Meetings (Tentative)

- Feb 25: FLYTE (Lyft)
- Mar 11: TBD
- Mar 25: Substra Foundation
- April 8: Adlik (ZTE)
- April 22: TBD
- May 6: All project updates

Please send agenda topic requests to tac-general@lists.lfaidata.foundation
TAC Meeting Details

- To subscribe to the TAC Group Calendar, visit the wiki: https://wiki.lfaidata.foundation/x/cQB2
- Join from PC, Mac, Linux, iOS or Android: https://zoom.us/j/430697670
- Or iPhone one-tap:
  - US: +16465588656,,430697670# or +16699006833,,430697670#
- Or Telephone:
  - Dial(for higher quality, dial a number based on your current location):
    - US: +1 646 558 8656 or +1 669 900 6833 or +1 855 880 1246 (Toll Free) or +1 877 369 0926 (Toll Free)
- Meeting ID: 430 697 670
- International numbers available: https://zoom.us/u/achYtcw7uN
Open Discussion
Mission

To build and support an open community and a growing ecosystem of open source AI, data and analytics projects, by accelerating innovation, enabling collaboration and the creation of new opportunities for all the members of the community.
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