

Overview of the LF AI Foundation

 THE **LINUX** FOUNDATION

 **LF AI**




















What is the LF AI Foundation?

- LF AI is a Linux Foundation project founded in March 2018 to support collaboration and open source innovation in the AI, ML, and DL domains.
- LF AI members are collaborating to create a neutral environment with an open governance for harmonization and acceleration of separate technical projects focused on AI, ML, and DL technologies.

Mission

Build and support an open AI community, and drive open source innovation in the AI, ML and DL domains by enabling collaboration and the creation of new opportunities for all the members of the community

Members

Premier					
					
General					
					
Associate			<i>The Associate membership category is limited to academic and nonprofit institutions respectively and requires approval by the Governing Board.</i>		

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GRADUATE

Machine learning platform and distributed marketplace for ML models.

Contributed by AT&T and Tech Mahindra - April 2018

<https://github.com/acumos>

7K+ commits

89 contributors

License: Apache-2.0



INCUBATION

A high-performance distributed ML platform based on Parameter Server, running on YARN and Apache Spark.

Contributed by Tencent - August 2018

<https://github.com/Angel-ML/angel>

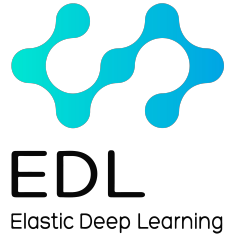
2K+ commits

39 contributors

4K+ stars

License: Apache-2.0

LF AI hosted projects 2/4



INCUBATION

A framework designed to help DL cloud service providers to build cluster cloud services using different DL frameworks.

Contributed by Baidu - August 2018

<https://github.com/paddlepaddle/edl>

900+ commits

15 contributors

License: Apache-2.0



INCUBATION

Distributed training framework for TensorFlow, Keras, and PyTorch. The goal of Horovod is to make distributed Deep Learning fast and easy to use.

Contributed by Uber - December 2018

<https://github.com/horovod/horovod>

400+ commits

57 contributors

>7K stars

License: Apache-2.0

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INCUBATION

Pyro is a universal probabilistic programming language written in Python and supported by PyTorch on the backend.

Contributed by Uber - January 2019

<https://github.com/pyro-ppl/pyro>

1,600+ commits

62 contributors

5,595 stars

License: Apache-2.0



INCUBATION

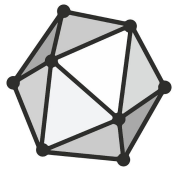
Adlik is an end-to-end optimization framework for DL models. The goal of Adlik is to accelerate DL inference process both on cloud and embedded environment.

Contributed by ZTE - September 2019

<https://github.com/Adlik/Adlik>

License: Apache-2.0

LF AI hosted projects 4/4



ONNX

GRADUATE

ONNX is an open format to represent machine learning and deep learning models that can execute on a variety of hardware platforms and clouds. ONNX provides portability, allowing AI developers to more easily move AI models between tools that are part of trusted AI/ML/DL workflows.

Contributed by ONNX Community - October 2019

<https://github.com/onnx>

138 contributors

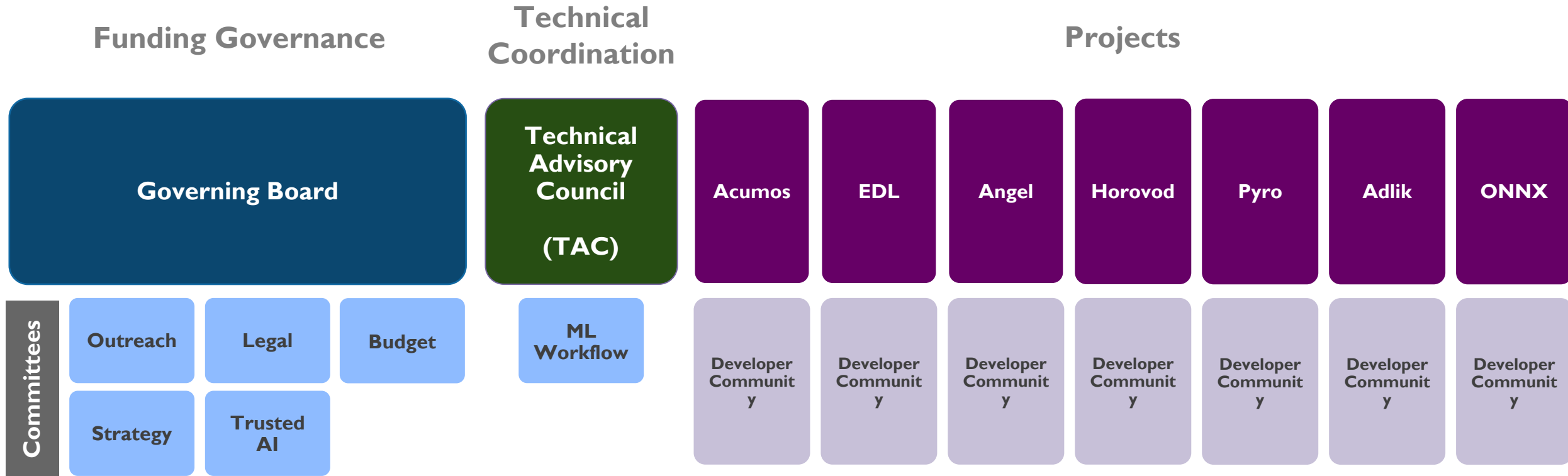
7K+ stars

License: MIT

Governance Overview

- › LF AI is a single funding effort to support technical projects hosted under the Foundation.
- › Technical projects have their own technical governance following our principle of separation of technical governance from funding governance.

Structure



Hosting Projects under LF AI: Project Contribution Process

<https://github.com/lfai/proposing-projects>

LF AI Project Hosting Requirements

The project must:

- Use an approved OSI open source license
- Be supported by a LF AI member
- Fit within the mission and scope of LF AI
- Allow neutral ownership of project assets such as a trademark, domain or GitHub account (the community can define rules and manage them)
- Have a neutral governance that allows anyone to participate in the technical community, whether or not a financial member or supporter of the project

Why host a project under an open source foundation?

1. You believe the project will gain wider community adoption if it's no longer solely affiliated with the corporate partner.
2. Several companies are working on very similar projects, and transferring management to an open source foundation would unite people under a common project.
3. There are legal or administrative tasks essential to the health of the project, and it's not clear which current participant should own these tasks. These types of needs typically only arise after a project has already become reasonably established, with an active contributor community and often one or more dedicated corporate partners.

On-boarding Projects into LF AI

- › Projects are on-boarded and progress pursuant to the LF AI Foundation's Project Lifecycle and Contribution Process.
 - › Three stages: Incubation, Graduation and Emerituis.
 - › These documents can be found on GitHub:
<https://github.com/lfai/proposing-projects/>

LF AI Project Maturities

› Incubation

Projects join LF AI as incubation by meeting the requirements set forth in the “Project Process and Lifecycle Document”.

TAC Vote.

› Graduation

Incubation requirements.

Additional requirements as set in the “Project Process Lifecycle Document”.

TAC Vote + GB Vote.

› Emerituis

Emeritus projects are projects which the maintainers feel have reached or are nearing end-of-life. Emeritus projects have contributed to the ecosystem, but are not necessarily recommended for modern development as there may be more actively maintained choices.

Criteria to Accept Incubation Project Under LF AI

- The project uses an OSI-approved open source license
- The project does not have dependencies on components that are either proprietary or licensed under a non OSI-approved license
- Submit a completed Project Contribution Proposal to the TAC via a Github pull request (<https://github.com/lfai/proposing-projects/tree/master/proposals>) along with a short and a short email notification to info@lfai.foundation
- Provide such additional information as the TAC or GB may reasonably request
- Demonstrate a substantial ongoing flow of commits and merged contributions
- Have a healthy number of committers. A committer is defined as someone with the commit bit; i.e., someone who can accept contributions to some or all of the project
- Be deemed by the TAC and GB to add value to the artificial intelligence, machine learning and/or deep learning space and to fall within the mission and scope of LF AI
- Agree to transfer any relevant trademarks to The Linux Foundation

Criteria to Accept Graduation Project Under LF AI

In addition to the Incubation stage requirements, a project must meet these requirements:

1. Have a healthy number of committers from at least two organizations
2. Have achieved and maintained a Core Infrastructure Initiative Best Practices Badge
3. Demonstrate a substantial ongoing flow of commits and merged contributions
4. Document current project owners and current and emeritus committers in OWNERS.md and COMMITTERS.md files; copy of the project's charter (or other authorized governance document) shall be included or linked to in a GOVERNANCE.md or in a similar file
5. Receive the affirmative vote of two-thirds of the TAC and the affirmative vote of the GB

Transitioning from Incubation to Graduation

- The TAC will undertake an annual review of all LF AI projects to assess whether each Incubation Stage project is making adequate progress towards the Graduation stage and whether each Graduation Stage project is maintaining progress to remain at Graduation level.
- The suggested time frame for the review is to start on September 1st and ends on October 31st and should end by Oct 31 with a set of recommendations for each project to improve and/or a recommendation to the GB on moving a project across stages.
- Projects can be provided with an extension of time in their stage (up to the discretion of the TAC).
- Any project may be moved to Emeritus stage by affirmative vote of the TAC, provided that the transition has secured:
 - An affirmative $\frac{2}{3}$ vote of the TAC
 - An affirmative $\frac{2}{3}$ vote of the GB

Benefits - Apply to Incubation and Graduation Projects

- Larger community, larger pipeline of potential customers
- Validation from trusted source
- Scalable and neutral governance
- Neutral hosting of the project's trademark
- Marketing and awareness
- Collaboration opportunities with other LF AI projects
- Compliance scans
- IT enablement (specifics depend on project level)

Specific Benefits for Incubation Projects

- The project has the right to refer to the project as an “LF AI Foundation Incubation Project”
- Appointment of an existing TAC member that will act as a sponsor of the project and provide recommendations regarding governance best practices
- Access to LF AI booth space at various events for demo purposes based on availability

Specific Benefits for Graduation Projects

- The project has the right to refer to the project as an “LF AI Graduation Project”, which signals to the market that the project has reached a high level of technical maturity with confidence in its and readiness for deployment
- Projects designed as Graduation Projects by the GB get a voting seat on the TAC
- Graduation projects are eligible to request and receive support contingent on GB approval. The ability for a company to be represented on the GB and influence the internal GB process is highly beneficial to projects making such requests
- Priority access to LF AI booth space at various events for demo purposes
- Graduation projects have a technical lead appointed for representation of the project to the TAC

Contact Us!

- › LF AI is actively reaching out to open source AI/ML/DL projects for contribution and collaboration. If you have a project that could benefit from:
 - › Community building
 - › Marketing and brand outreach strategies
 - › Developer support
 - › Collaboration with other projects
- › info@lfai.foundation

Joining the LF AI Foundation

Membership Benefits

Organizations join **LF AI** because they want to take an active role in supporting the growth and evolution of the open source **AI/ML/DL** ecosystem.

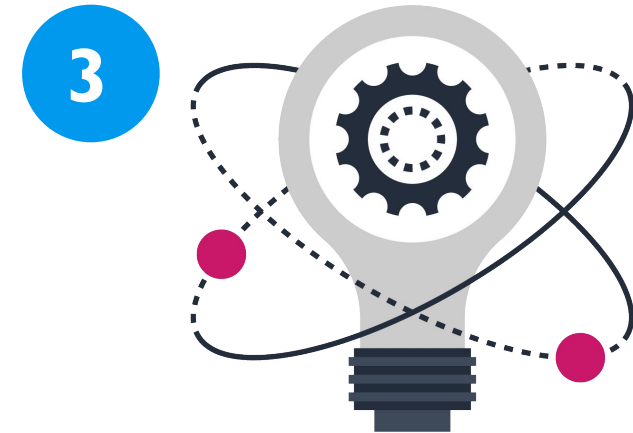
Membership Provides:



Marketing Amplification
and Brand Awareness



Community Engagement



Thought Leadership

LF AI Foundation Annual Dues

	Not Yet a Linux Foundation Member	Existing Linux Foundation Member
Premier Member	\$120,000	\$100,000
General Member	5,000 employees +: \$45,000 2,000 - 4,999: \$30,000 500 - 1,999: \$25,000 Up to 499 employees: \$10,000	5,000 employees +: \$25,000 2,000 - 4,999: \$15,000 500 - 1,999: \$10,000 Up to 499 employees: \$5,000
Associate Member	Free <small>Limited to academic and nonprofit institutions respectively and requires approval by the Governing Board</small>	

Premier Membership

Highest tier of membership – For organizations who contribute heavily to open source AI, ML and DL and bring in their own projects to be hosted at the Foundation. They work in concert with LF AI + LF team members. These companies want to take the most active role in enabling open source AI, ML and DL.

Premier members are eligible to:

(Enjoy all the benefits of General level, plus;)

- Appoint one representative to the LF AI Governing Board.
- Appoint one representative as a voting member in any subcommittees or activities of the Governing Board.
- Enjoy most prominent placement in displays of membership including website and marketing materials.
- Increased access to Linux Foundation's invitation-only Open Source Leadership Summit.
- Create an individualized press release upon membership announcement with the LF AI PR team.
- Receive ongoing, individual engagement and guidance from LF AI Executive Director and staff.

General Membership

Targeted for organizations that want to put their organization in full view in support of LF AI and our mission. Organizations that join at the General level are deeply committed to using open source technology, helping LF AI grow, voicing the opinions of their customers, and giving back to the community.

General members are eligible to:

- Participate in elections to appoint one representative to the LF AI Governing Board per every ten General members, up to three maximum General representatives.
- Receive greater insight into LF AI strategy and project roadmaps through increased engagement with the LF AI Executive Director and staff.
- Create an individualized press release upon membership announcement with the LF AI PR team.
- Participate in all Marketing, Community, Thought Leadership opportunities.
- Demonstrate your support for LF AI by displaying your logo on the LF AI website and in marketing materials.

Associate Membership

The Associate membership is limited to academic and non-profit institutions respectively.

Associate members are eligible to:

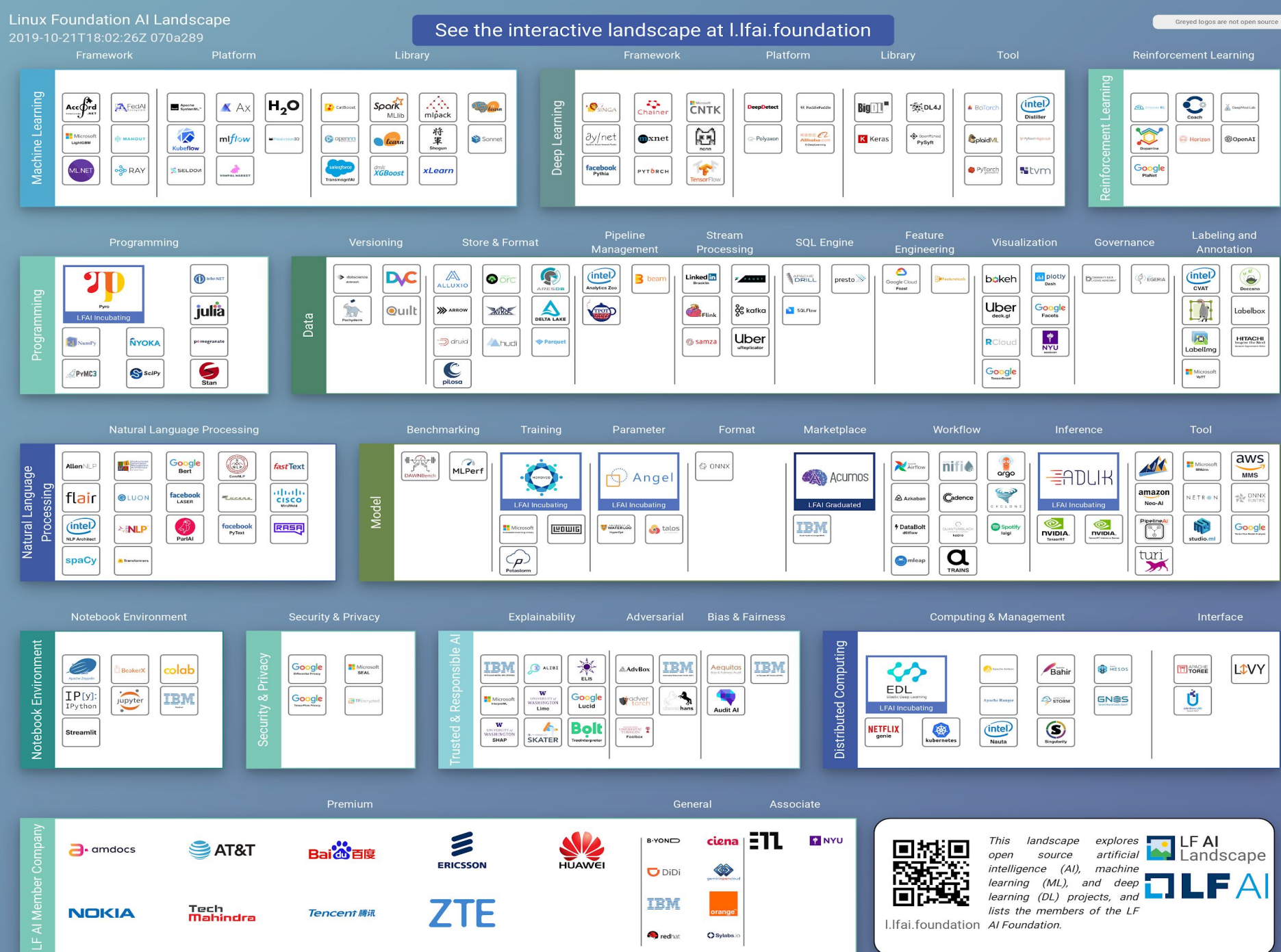
- Participate in all Marketing, Community, and Thought Leadership opportunities.
- Identify your organization as a member and display your logo on the LF AI website and in marketing materials.
- Feature your organization in the new member announcement.

The logo icon consists of a white square frame. Inside the frame, there is a stylized landscape with a grey circle representing the sun or moon above two grey mountain peaks. The entire icon is white on a dark blue background.

LF AI Landscape

10 Licenses

Last updated Oct 22, 2019



Joining LF AI Foundation is easy!

Please follow up with [Ibrahim Haddad](#)

Web site: <https://lfai.foundation>

Landscape: <https://l.lfai.foundation>

GitHub: <https://github.com/lfai>

Wiki: <https://wiki.lfai.foundation/>