Overview of the LF Deep Learning Foundation

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This presentation is available at:
https://github.com/LFDLFoundation/presentations

THE LINUX FOUNDATION

LF DEEP LEARNING

What is LF DL Foundation?

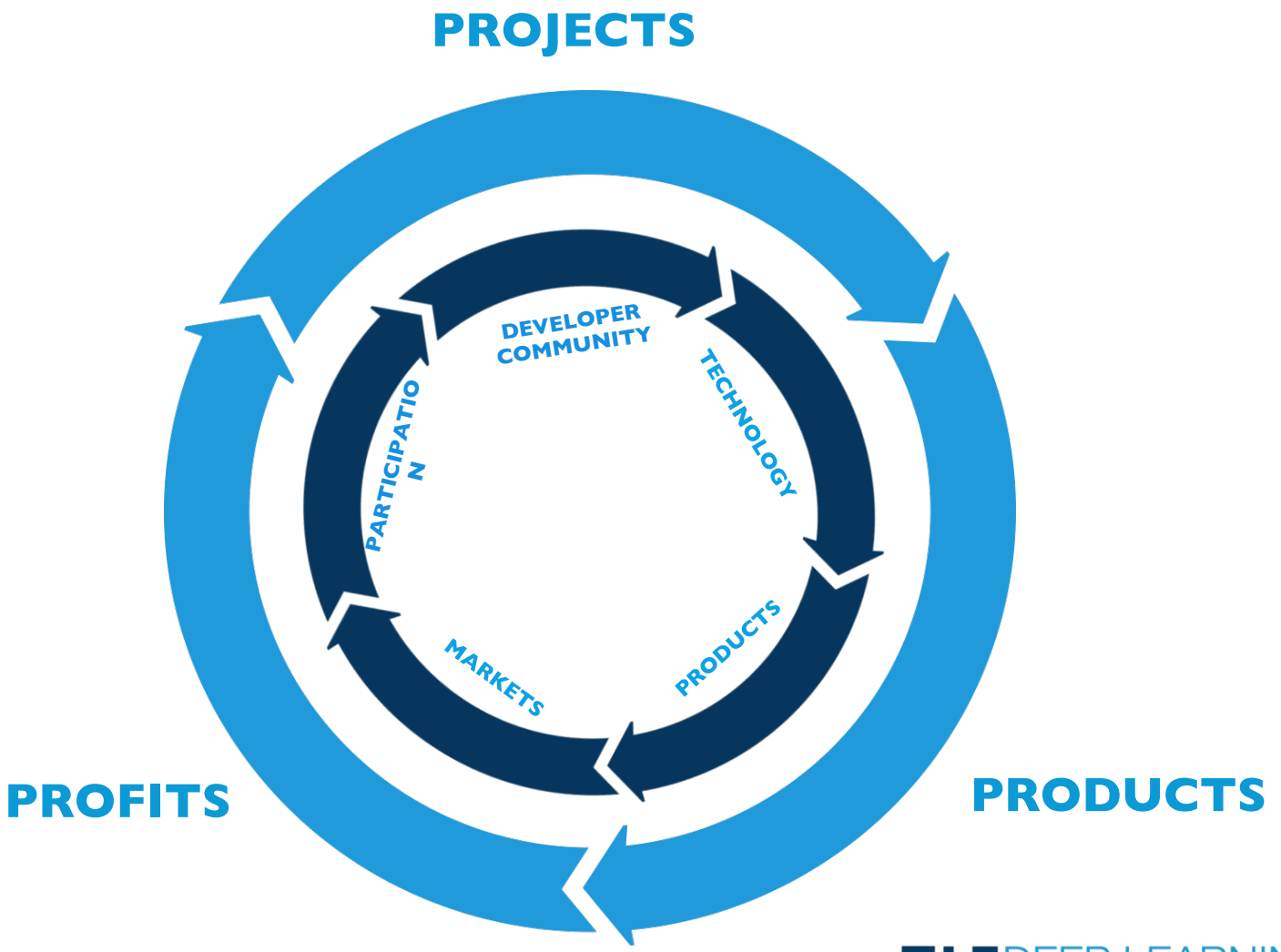
- LF DL is a Linux Foundation project founded in March 2018 to support collaboration and open source innovation in the AI, ML, and DL domains.

- LF DL members are collaborating to create a neutral space for harmonization and acceleration of separate technical projects focused on AI, ML, and DL technologies.

Current Members

LF DL: Creating a Sustainable Open Source AI Ecosystem

Successful open source projects depend on members, developers, standards and infrastructure to develop products that the market will adopt.



Mission

Build and support an open community of data scientists, researchers, and developers focused on AI, ML, and DL, and drive open source innovation in these domains by enabling collaboration and the creation of new opportunities for the community and their supporting organizations.

Strategic Goals

- Offer a neutral environment that fosters collaboration and cross-pollination between open source projects focused on AI/ML/DL
- Increase efforts to harmonize AI/ML/DL open source projects and reduce fragmentation
- Become the home of open source efforts for AI ethics and fairness
- Host open source data lakes and offer a marketplace for AI/ML/DL models
- Increase awareness of key AI/ML/DL open source projects and increase the ease of use of these projects

Current Projects

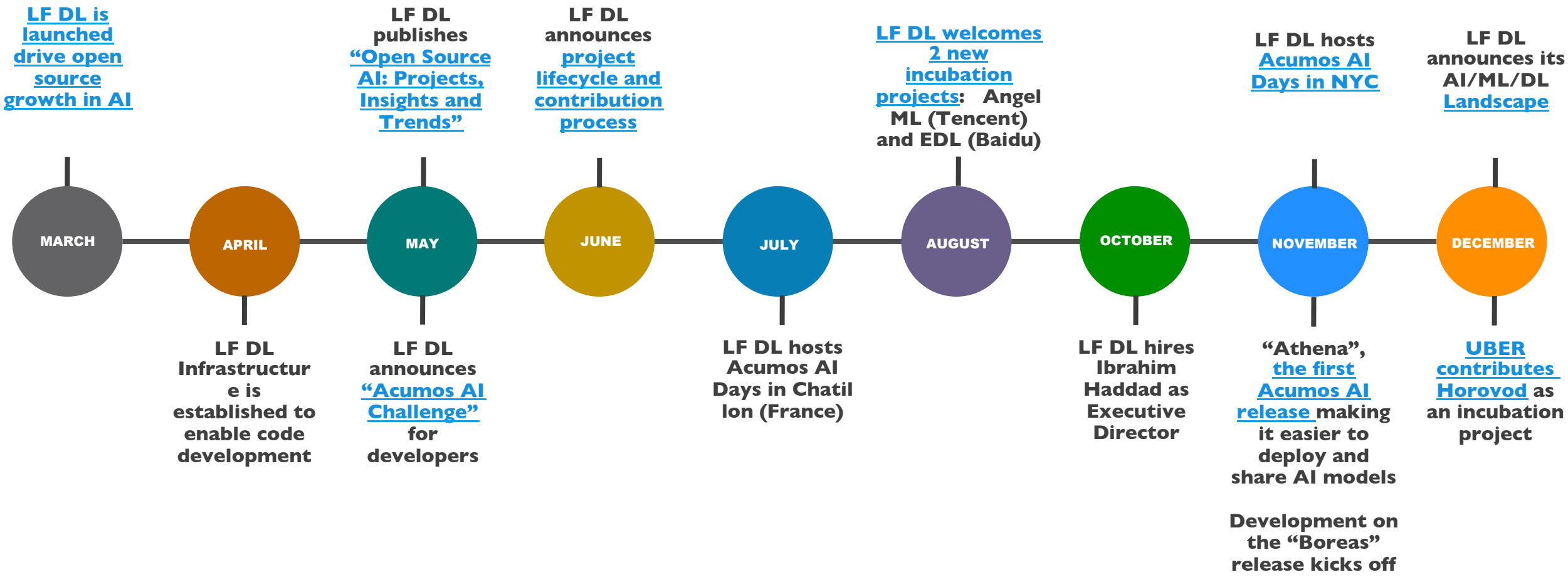
AI model workflow and discovery platform.

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

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

Distributed training framework for TensorFlow, Keras, and PyTorch.

2018 Major Milestones



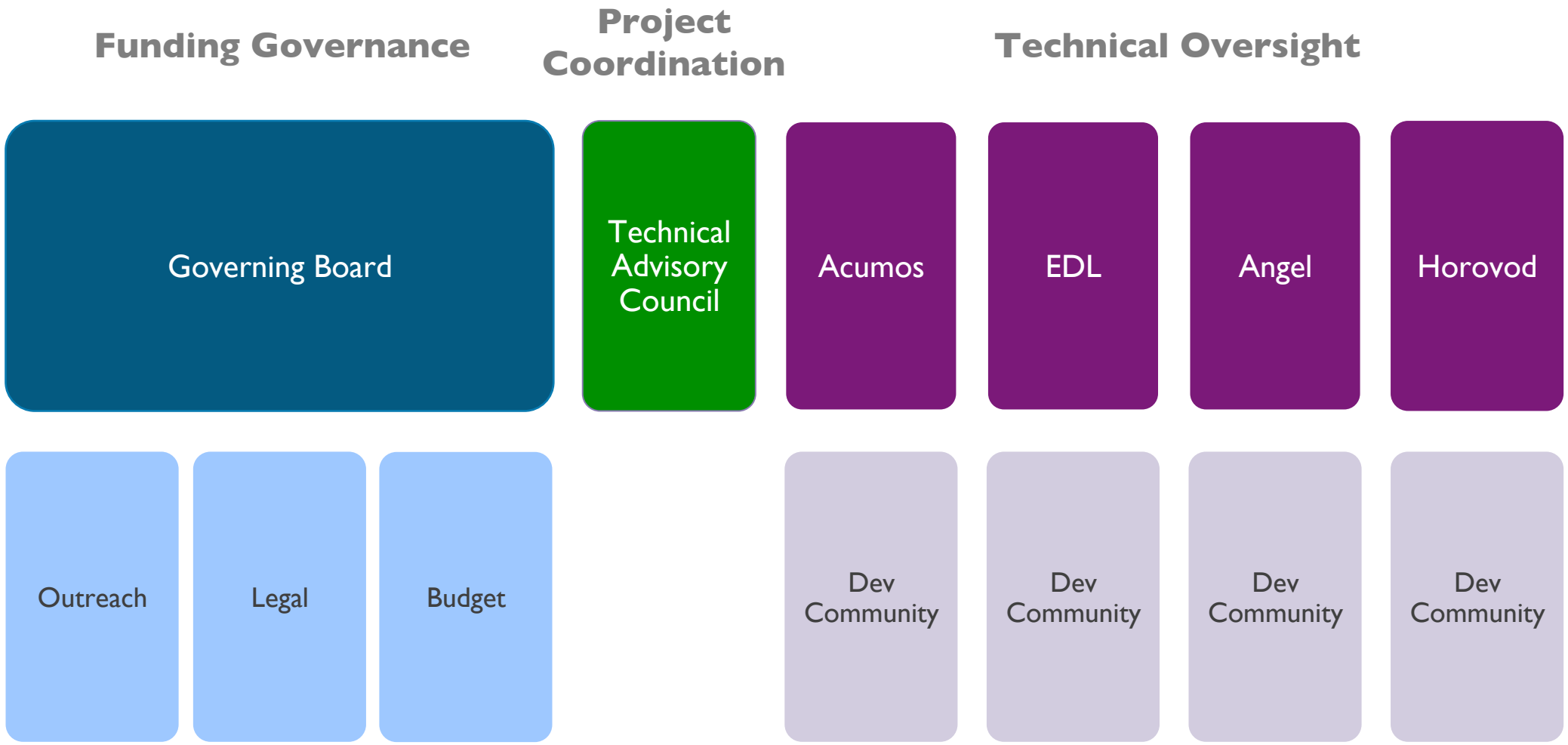
Governance and Structure 1/2

- LF DL is a single funding effort to support technical projects hosted under in the Foundation.

- Technical projects have their own technical governance following our principle of separation of technical governance from funding governance.

- The Foundation's Charter is available from https://lfdl.io.

Governance and Structure 2/2



Hosting Projects the under LF DL: Project Contribution Process

https://github.com/LFDLFoundation/proposing-projects

On-boarding Projects into LF DL

- Projects are on-boarded and progress pursuant to the LF Deep Learning Foundation's Lifecycle and Project Contribution Process Documents.
  - Three stages: Incubation, Graduation and Archive.
  - These documents can be found on GitHub.

LF DL Project Maturities

› Incubation projects

Projects join LF DL as incubation by meeting the requirements set forth in the "Project Lifecycle Document".

TAC Vote.

› Graduate projects

Incubation requirements.

Additional requirements as set in the "Project Lifecycle Document".

TAC Vote + GB Vote.

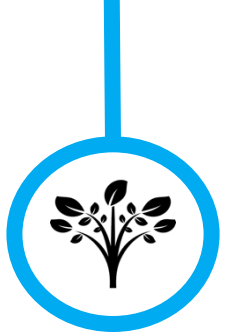
Criteria to Accept Incubation Project Under LF DL

1. Submit a completed Project Contribution Proposal to the TAC
   - Process and proposal are available on Github and on the LF DL web site
2. Present the project and the proposal to the TAC and, if requested, to the Governing Board
3. Be deemed by the TAC and Governing Board to fall within the mission and scope of LF DL Foundation and to add value to the AI/ML/DL space
4. Have an OSI-approved open source license
5. Agree to transfer any relevant trademarks to The Linux Foundation or its affiliate, LF Projects, LLC, and to assist in filing for any relevant unregistered ones

Criteria to Accept Graduation Project Under LF DL

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
5. A copy of the project's charter (or other governance document) shall be included or linked to in a GOVERNANCE.md or in a similar file
6. Have a technical lead appointed for representation of the project to the TAC
7. Receive the affirmative vote of 2/3 of the TAC and the affirmative vote of the Governing Board



LF Deep Learning has a modular approach to hosting projects.

Think of LF Deep Learning as a greenhouse growing and sustaining open source AI/ML/DL projects from seed to fruition. The Linux Foundation and LF Deep Learning provide the infrastructure and support for open development to occur among a diverse and thriving community, in addition to a number of enabling services (legal, PR/marketing, events, compliance scans, etc.).

Benefits of Hosting Projects at the LF DL Foundation

1. Maintain your committers and define your own project governance (as long as its neutral)
2. A not-for-profit, neutral home increases contributions from external organizations
3. LF DL staff eager to assist (ED, PM, IT staff, PR, marketing, events, etc.)
4. LF DL blog announcement or similar announcing the inclusion of the project
5. Infrastructure resources (wiki, build, jira, mailing lists, support staff, etc.)
6. Neutral hosting of the project's trademark
7. An initial license scan of the project's codebase
8. Cross pollination opportunities with other LF DL projects
9. Endorsement by LF DL TAC - Appointment of an existing TAC member as a sponsor of the project and provide recommendations regarding governance best practices
10. Right to refer to the project as a "LF Deep Learning Foundation Project," with the right, subject to applicable trademark usage guidelines, to display the Deep Learning logo on the project's code repository
11. Graduation stage may receive support as determined by the Governing Board

Contact Us!

- LF DL 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

- Please reach out to us!
  - info@lfdl.io
  - @IbrahimAtLinux

Joining the LF Deep Learning Foundation

Membership Benefits

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

LF DL Membership Provides:

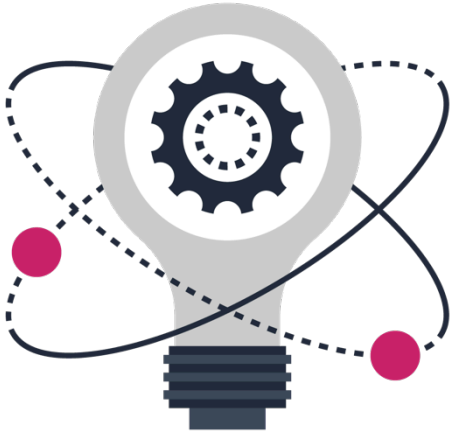
1

Marketing Amplification and Brand Awareness

2

Community Engagement

3



Thought Leadership

LF Deep Learning 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

General Membership

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

General members are eligible to:

- Participate in elections to appoint one (1) representative to the LF DL Governing Board per every ten (10) General members, up to three (3) maximum General representatives.
- Receive greater insight into LF DL strategy and project roadmaps through increased engagement with the LF DL Executive Director and staff.
- Create an individualized press release upon membership announcement with the LF DL PR team.
- Participate in all Marketing, Community, Thought Leadership opportunities.
- Demonstrate your support for LF DL by displaying your logo on the LF DL website and in marketing materials.

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 DL + 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 (1) representative to the LF DL Governing Board.
- Appoint one (1) representative as a voting member in any subcommittees or activities of the Governing Board.
- Enjoy most prominent placement in displays of membership including on the website and in 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 DL PR team.
- Receive ongoing, individual engagement and guidance from LF DL Executive Director and staff.

Interactive AI/ML/DL Landscape

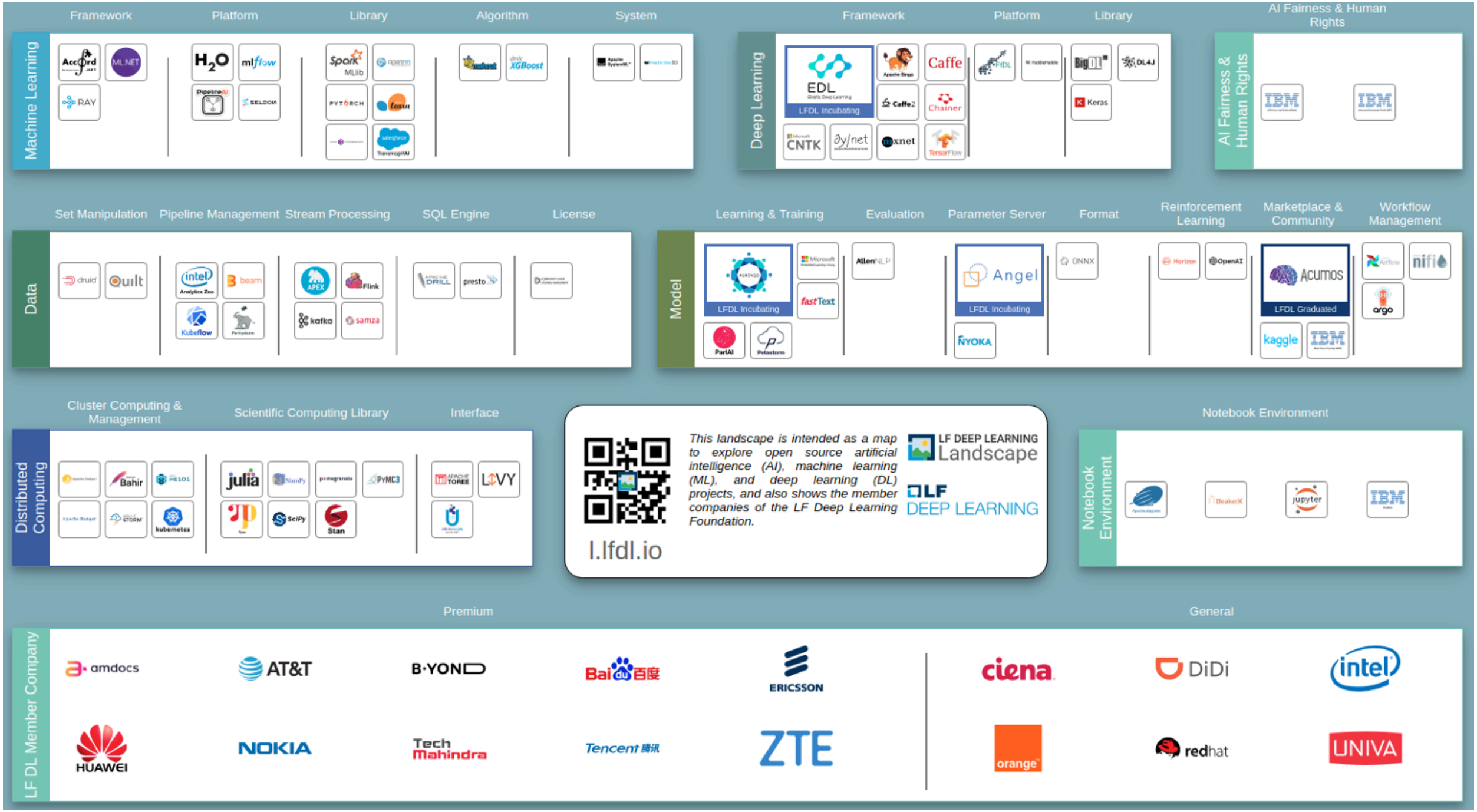
LF Deep Learning Foundation – Interactive Landscape

This landscape is intended as a map to explore open source artificial intelligence, machine learning, and deep learning projects; it also features the member companies of the LF Deep Learning Foundation.

https://l.lfdl.io

Please open a pull request to correct any issues.

Try it: l.lfdl.io


Machine Learning
Framework
Platform
Library
Algorithm
System
Deep Learning
Framework
Platform
Library
AI Fairness & Human Rights
AI Fairness & Human Rights
LFDL Incubating
Data
Set Manipulation
Pipeline Management
Stream Processing
SQL Engine
License
Model
Learning & Training
Evaluation
Parameter Server
Format
Reinforcement Learning
Marketplace & Community
Workflow Management
LFDL Incubating
LFDL Incubating
LFDL Graduated
Distributed Computing
Cluster Computing & Management
Scientific Computing Library
Interface
This landscape is intended as a map to explore open source artificial intelligence (AI), machine learning (ML), and deep learning (DL) projects, and also shows the member companies of the LF Deep Learning Foundation.
l.lfdl.io
LF DEEP LEARNING Landscape
LF DEEP LEARNING
Notebook Environment
Notebook Environment
LF DL Member Company
Premium
General

Joining LF DL Foundation is easy.
Join today!

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