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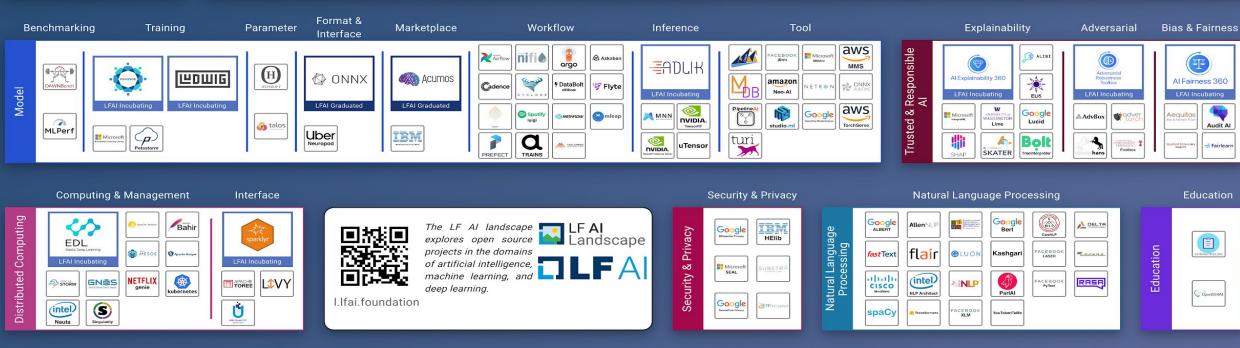
@IbrahimAtLinux

LF Al: Accelerating Open Source Al Innovation and Collaboration

Ecosystem Overview







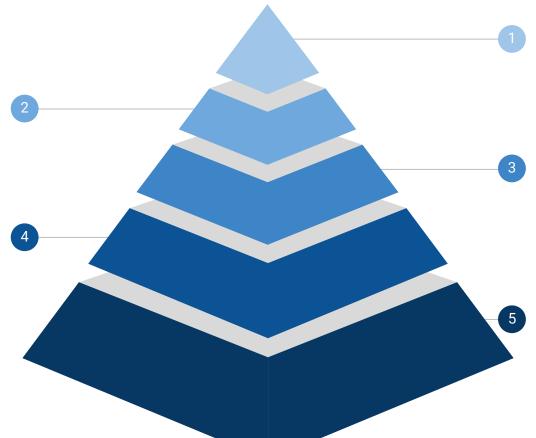
Open Source AI - Ecosystem Challenges

Managing projects assets

As project grows, it is unclear who should own legal and administrative tasks that are essential to the health of the project

Governance challenges

No formal governance, governance favors the creators of the project, project backer dominating dev and governance



Glass ceiling for project investment and adoption

in the absence of a fair governance and safe haven for the project's assets

Developed for a specific product needs

The open source spinoff is a result of wanting to build an ecosystem and collaborate on building a platform

Fragmentation
Lack of integration
Lack of cross pollination across
projects



LF Al is an LF umbrella foundation founded in March 2018 to support collaboration and open source innovation in the Al, ML, and DL

https://lfai.foundation

THE LINUX FOUNDATION

Motivations for Harmonization

- 1. Better integration, interoperability and capabilities across projects
- 2. Greater efficiency for members across various costs spent on supporting and growing the ecosystem
- 3. Unified guidance for end users on tools, interoperability, integration, standards, and the future of Al, Data and Analytics as its use continues to grow in every industry
- 4. Hosting projects under a single umbrella enables closer collaboration and integration across projects and is a proven recipe for building a strong open ecosystem

LF Al Structure

Funding Governance

Governing Board

Committees

Outreach

Legal

Strategy

Budget

Technical Coordination

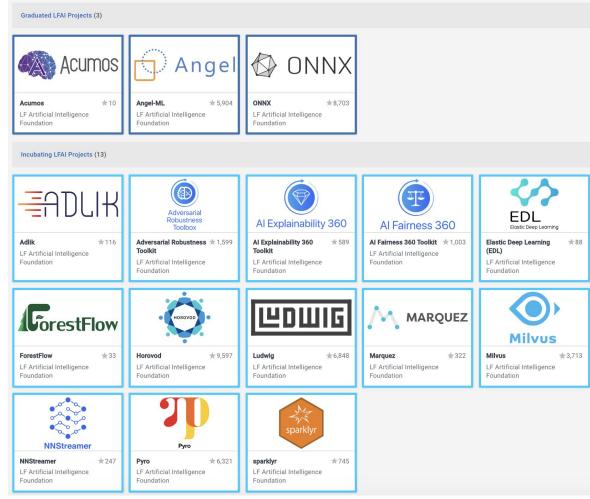
Technical Advisory Council

(TAC)

ML Workflow & Interop

Trusted AI

Hosted Projects





Governance

- > Foundation governance: funding effort to support technical projects hosted under the Foundation
- Technical governance: hosted projects have their own independent technical governance
- The Foundation's Charter is available from https://lfai.foundation
- Dedicated Staff





LF AI Major Efforts

Neutral Environment

Provide an neutral environment and an open governance that fosters collaboration and cross-pollination across projects and communities

Harmonization, Interoperability

Increase efforts to harmonize AI/ML/DL open source projects and reduce fragmentation; increase interoperability among technical projects

Trusted and Responsible Al

Become the home of open source trusted and responsible AI, both at the level of technical projects and also at the level of principles and guidelines

Data, Models, Marketplace

Host open source models and provide supporting tools; publish best practices; offer a marketplace for Al/ML/DL models

Funding and Awareness

Provide a funding model for key projects

Increase awareness via a number of marketing and outreach activities

Training courses published in edX

Vendor neutral Not-for-profit Open governance IP clarity Technical Advisory Council
ML Workflow & Interop
Cross-Foundation Collab
Integration across projects

Trusted Al Committee

Open source Marketplace
Open source Al models

Funding model

LF AI Days

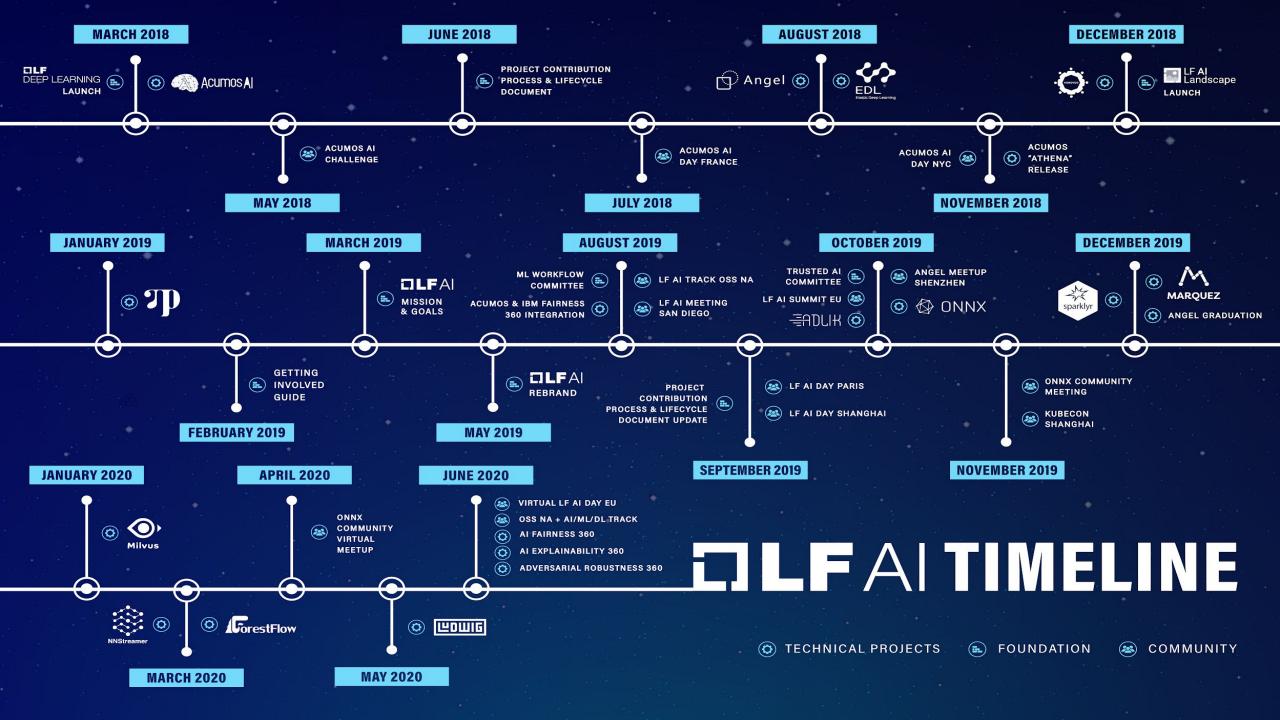
LF AI Summits

Marketing services

PM services

Event services

THE LINUX FOUNDATION



Members



Projects

Graduation

Incubation

Graduated LFAI Projects (3)



★10 Acumos LF Artificial Intelligence



Angel-ML **★** 5.904 LF Artificial Intelligence Foundation



*****8,703

ONNX

LF Artificial Intelligence Foundation

Incubating LFAI Projects (13)



★116

±33

Adlik

Foundation

LF Artificial Intelligence Foundation



Toolbox

Adversarial Robustness # 1.599 **Toolkit**

LF Artificial Intelligence Foundation



Al Explainability 360 **★**589 **Toolkit**

LF Artificial Intelligence Foundation



Al Fairness 360 Toolkit #1,003

LF Artificial Intelligence Foundation



***88**

Elastic Deep Learning (EDL)

LF Artificial Intelligence Foundation



ForestFlow

LF Artificial Intelligence Foundation



Horovod

\$9,597

LF Artificial Intelligence Foundation



±6,848

Ludwig

LF Artificial Intelligence Foundation



Marquez *****322

LF Artificial Intelligence Foundation



Milvus *****3,713

LF Artificial Intelligence Foundation



NNStreamer

LF Artificial Intelligence Foundation



Pyro ***** 6.321 LF Artificial Intelligence

Foundation



sparklyr **★745**

LF Artificial Intelligence Foundation

Companies hosting projects in LF Al



































A Growing Developer Community

| Acumos |
|----------------------------|
| Adlik |
| Adversarial Robustness 360 |
| AI Explainability 360 |
| AI Fairness 360 |
| Angel |
| EDL |
| ForestFlow |
| Horovod |
| Ludwig |
| Marquez |
| Milvus |
| nnstreamer |
| ONNX |
| Pyro |
| Sparklyr |

You are currently tracking **7,310,710 lines of code**, committed by **1,119 developers**, from **46 known organizations**, working in **76 repos**, on **16 projects** over the last **6 years**, **6 months**, and **14 days**.



Strong LF Al Marketing/PR Effort

37 announcements in 2019

26 announcements in IH 2020

- > Events announcements and promotion
- Project release
- Project incubation
- New members joining
- Project cross collaboration
- Invited posts

LF AI provides marketing services to support community and ecosystem engagement.

- Content ranging from the LF AI blog, white papers, posters, presentations, and more
- Oversee blog editorial calendars and writing, editing, and/or identifying and funding freelancers to develop content
- Help develop the project website and other required creative work





LF Al Events - Community Driven

- LF AI Summit co-located event with major LF conferences + Booth
- LF AI Track at Open Source Summit (NA, EU, China) - Supporting 18-20 talks over 3 days + Booth
- LF AI Days a whole day (in person and virtual) hosted in collaboration with an LF AI member with audience ranging from 50-250. Multiple/year.
- Project specific events
- Sponsorship and booth at KubeCon
- > Strong presence & event participation in China







Universities Contributing Code to LF AI Projects

























Incubating Projects

- LF Al's TAC committee is responsible to voting in new incubation projects.
- > The TAC meets bi-weekly and generally booked 4-6 weeks in advance.

Proposing projects for incubation in LF AI:
 https://lfai.foundation/proposal-and-hosting-process/



What does it mean to be a Foundation project?

- A neutral home for the project increases the willingness of developers from organizations to collaborate, contribute, and become committers
- Endorsement by members of the LF Al's Technical Advisory Committee (TAC) is an independent signal of the quality of your project
- Open governance model
- Program management support
- Access to full-time LF AI staff who are eager to assist your project

- Access to marketing and communications services to support community and ecosystem engagement
- Access to a full range of events services to help the project build and grow a community around it
- Legal support ranging from hosting the trademark in a neutral organization to CLA and DCO system integration with GitHub, regular compliance scans, etc.
- Presence across multiple geographies





Project Resources

Hosted project stages and life cycle:

https://lfai.foundation/project-stages-and-lifecycle/

Offered services for hosted projects:

https://lfai.foundation/services-for-projects/





Stay Connected with LF AI

Social



@LFAI Foundation



LF Al Foundation

Mail Lists

- > TAC Participate in technical governance and hear about LF AI projects
- > Events Learn about upcoming events
- > Announce Stay in the loop on top level Foundation announcements

Blog

Check the latest news on our <u>Blog</u>





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
Mailing lists https://lists.lfai.foundation/groups



