



LF Deep Learning Foundation Overview Presentation

October 2018



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Agenda

- › Mission of the LF Deep Learning Foundation
- › LF DL -- Governance and Structure
 - › Review of LF DL as an “Umbrella Project”
 - › Governing Board
 - › Budget
 - › Technical Advisory Committee
 - › Project Contribution Process
 - › Outreach Committee
 - › Marketing Statistics
- › Review of LF DL Activities Since March 2018 Launch
- › Supported Projects
 - › Acumos AI Project
 - › Angel Project
 - › EDL Project
- › More Information / How to Get Involved
- › Discussion / Q&A

LF DL Mission and Strategic Goals

- › LF DL is driving open source innovation in AI by building and supporting an ecosystem of AI / ML / DL projects.
- › LF DL seeks to enable not only enhanced code development and collaboration, but also to open up new business models and opportunities for the community
- › Goals include:
 - › Increasing the ease of use of AI, “democratizing” AI
 - › Establishing a neutral environment for collaboration with shared tools and infrastructure
 - › Maintaining an “app store” for AI workflows with a marketplace for data models
 - › Reduce fragmentation, redundancy and waste in open source AI

LF DL -- Governance and Structure

- › Launched March 2018, LF DL is an “umbrella project” of The Linux Foundation, in that a single funding effort supports numerous technical projects.
- › With an umbrella project, there is one funding body – the Governing Board – that in turn supports various projects.
- › The umbrella structure allows our project communities to:
 - › Smooth resource requirements of projects, with maturing projects (needing fewer resources) balanced against newer projects that require investment;
 - › Reduce fragmentation and increase harmonization across a wide segment of industry; and
 - › Express a strategic vision across numerous open source projects over a long duration.

LF DL -- Governance and Structure

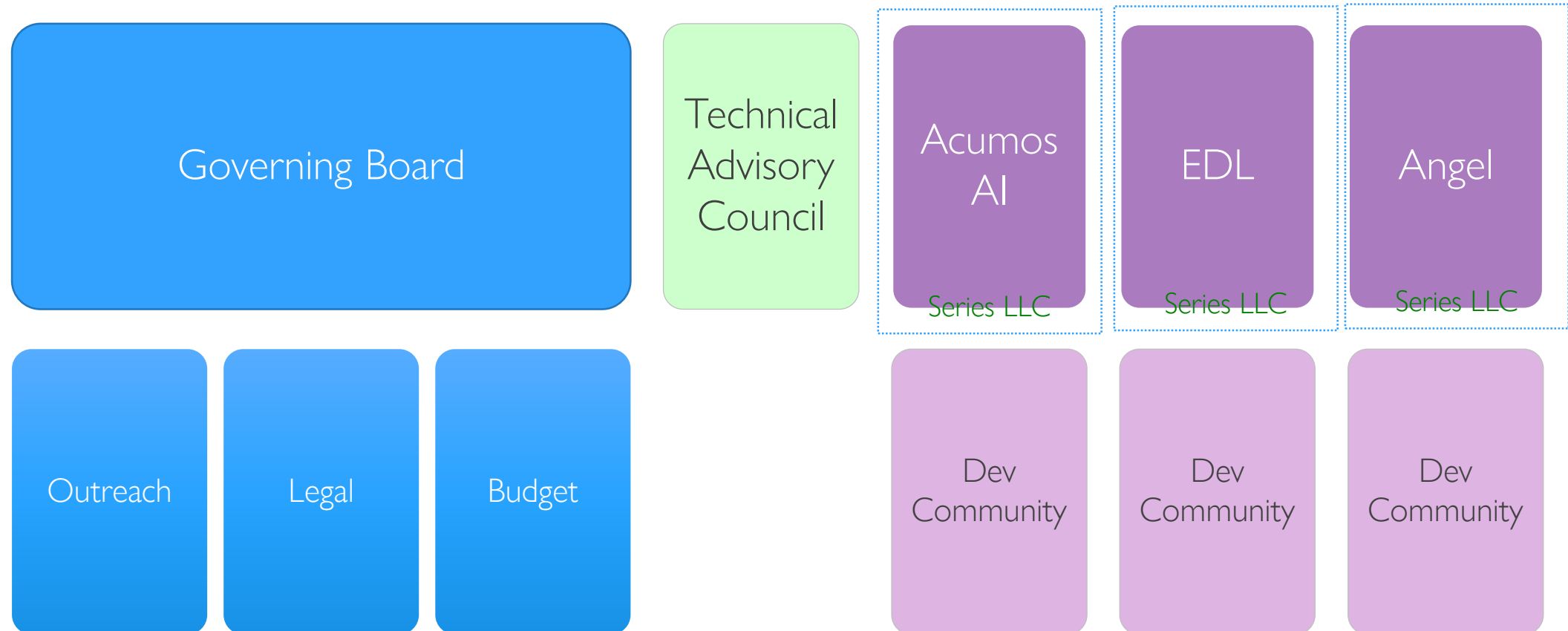
- › Following our principle of separation of technical governance from funding governance, technical projects have their own technical governance and IP policies.
- › The funding governance for the LF Deep Learning Foundation – how decisions are made – is set forth within the Foundation's Charter, which can be reviewed on the Foundation's web site (www.deeplearningfoundation.org).

LF DL -- Governance and Structure

We currently have 16 members, including:



LF DL -- Governance and Structure



LF DL -- Governance and Structure

Funding Governance

Governing Board

Outreach

Legal

Budget

Project Coordination

Technical
Advisory
Council

Technical Oversight

Acumos
AI

Series LLC

EDL

Series LLC

Angel

Series LLC

Dev
Community

Dev
Community

Dev
Community

Governing Board

- › Responsible for “Funding Governance” of LF DL
- › Composition:
 - › Appointees of Premier Members
 - › Elected representative of General Members
 - › TAC Chair
- › The General Member representative is elected annually, and is Francois Jezequel (francois.jezequel@orange.com)
- › Meetings monthly, generally on the first Tuesday of the month.

Technical Advisory Council

- › Technical Advisory Council
 - › Serves a coordination role:
 - › Facilitates communication across and among the supported technical projects; and
 - › Communicates needs and requirements of the projects to the Governing Board
 - › The chair of the TAC is a member of the Governing Board
 - › The TAC on-boards new projects, assists in progression of existing projects, and reviews projects annually
 - › Membership on the TAC is made up of:
 - › Premier Member appointees; and
 - › A representative of certain of the supported technical projects.
 - › The TAC meets every two weeks
 - › Meetings are recorded and fully open to the public
 - › TAC recordings and materials can be accessed at <https://lists.deeplearningfoundation.org/g/tac-general/wiki/home>
(note: sign-up on the LF Deep Learning mailing list is currently required)

TAC Wiki

- › We have established a Wiki for the TAC which can be found here (login to lists.deeplearning.org required):
 - › <https://lists.deeplearningfoundation.org/g/tac-general/wiki/home>

Project Contribution Process

- › LF DL is actively looking to support additional projects. We are maintaining active discussions with a number of third-party open source projects.
- › We have a project lifecycle document that sets forth the requirements for a supported project at various stages. Our TAC is responsible for initial project acceptance reviews, and if funding is required the Governing Board will also review the project.
- › The TAC has expressed an interest in taking an inclusive approach to supporting projects, versus a 'check the box' and only accepting one project in a particular category.
- › Project lifecycle and contribution documents for LD DL can be found on: www.deeplearningfoundation.org.

Outreach Committee

- › Responsible for community outreach and marketing for LF DL.
- › Proposes events and activities for support to the Governing Board.
- › Meetings are public, and all members are invited to send representatives. The Outreach Committee meets every two weeks for 45 minutes on every other Wednesday at 9:00 am ET.

Brief review of launch coverage - 451 Articles Total

- › App Developer Magazine, The Linux Foundation launches LF Deep Learning Foundation, 3.30.18
- › Computer Business Review, Linux launches AI Project to help build the future of AI, 3.26.18
- › eWeek, LF Deep Learning Foundation Debuts to Advance AI Usage, 3.26.18
- › Datanami, Linux Foundation Launches Open AI Effort, 3.29.18
- › FierceTelecom, Linux Foundation launches LF Deep learning Foundation to accelerate AI growth, 3.26.18
- › Light Reading, Linux Foundation Injects Open Source Into AI, 3.26.18
- › **LF Deep Learning was also mentioned in relation to an article written by Carol Wilson of Light Reading around additional Open Networking Summit news.*
- › Linux Journal, New Firefox Add-on Prevents Facebook Tracking, the Linux Foundation Announces the LF Deep Learning Foundation and More, 3.27.18 (news roundup)
- › Linux Gizmos, Intel contributes open source NEV and Titanium code to "Akraino" edge computing project, 3.27.18
- › SD Times, The Linux Foundation launches the LF Deep Learning Foundation, 3.26.18
- › SDxCentral, Linux Foundation Creates Deep Learning Foundation and AI Project, 3.26.18
- › TechCrunch, The Linux Foundation launches a deep learning foundation, 3.26.18
- › ZDNet, Linux Foundation pushes open-source AI forward with the Deep Learning Foundation, 3.26.18

Brief review of Acumos AI Challenge coverage - 100 Articles Total

- › CommunicationsToday: <https://www.communicationstoday.co.in/atts-gilbert-on-the-hunt-for-ai-solutions/>
- › Enterprise Management: <https://www.em360tech.com/tech-news/linux-foundation-ai-competition/>
- › FierceTelecom: <https://www.fiercetelecom.com/telecom/at-t-s-gilbert-talks-about-ai-competition-his-company-sponsoring-tech-mahindra>
- › Linux.com: <https://www.linux.com/news/compete-acumos-ai-challenge-chance-win-50000>
- › Linux Journal: <https://www.linuxjournal.com/content/linux-lite-40-released-linux-foundations-acumos-ai-challenge-fedora-29-bootloader-debate>
- › ReadWrite: <https://readwrite.com/2018/06/27/acumos-ai-challenge-to-speed-ai-adoption-and-innovation/>
- › SDxCentral: <https://www.sdxcentral.com/articles/news/att-and-tech-mahindra-sponsor-an-artificial-intelligence-contest/2018/05/>
- › TelecomPaper: <https://www.telecompaper.com/news/acumos-ai-challenge-sponsored-by-atandt-tech-mahindra--1246674>

Brief review of new member announcement coverage - 144 Articles Total

- › ComputerWeekly: <https://www.computerweekly.com/blog/Open-Source-Insider/Linux-Deep-Learning-expands-answer-is-still-42>
- › Converge! Network Digest: <https://www.convergedigest.com/2018/08/lf-deep-learning-foundation-builds.html>
- › FierceTelecom: <https://www.fiercetelecom.com/telecom/lf-deep-learning-signs-up-six-more-members-names-at-t-s-gilbert-governing-board-chair>
- › GoCertify: <http://www.gocertify.com/it-certification-industry-press-releases/lf-deep-learning-foundation-advances-open-source-artificial-intelligence-with-major-membership-growth>
- › TechTarget: <https://itknowledgeexchange.techtarget.com/open-source-insider/linux-deep-learning-expands-answer-is-still-42/>
- › Web-Scale Networking: <https://www.webscalenetworking.com/topics/webscalenetworking/articles/439191-lf-deep-learning-foundation-welcomes-new-members.htm>

Brief review of Angel/EDL coverage - English - 237 Articles Total

- › BusinessInsider: <https://markets.businessinsider.com/news/stocks/lf-deep-learning-adds-two-new-framework-projects-to-expand-community-and-ecosystem-1027486866>
- › Channel Futures: <https://www.channelfutures.com/open-source/ai-research-lf-deep-learning-foundation-gains-2-new-projects>
- › Datanami: <https://www.datanami.com/2018/08/30/new-open-source-projects-emerge-for-machine-learning/>
- › FierceTelecom: <https://www.fiercetelecom.com/tech/news-note-lf-deep-learning-announces-two-new-projects-vmware-centurylink-team-up-and-more>
- › SD Times: <https://sdtimes.com/softwaredev/sd-times-news-digest-new-two-factor-authentication-approach-the-lf-deep-learning-foundation-and-linux-4-19-rc1/>
- › TechZone360: <https://www.techzone360.com/topics/techzone/articles/2018/08/29/439319-going-deeper-more-distributed-linux-introduces-two-new.htm>
- › TelecomTV (also included in e-newsletter): <https://www.telecomtv.com/content/ai-ml/the-linux-foundation-strengths-its-push-into-ai-and-ml-32144/>
- › TuxMachines: <http://www.tuxmachines.org/node/115066>

Press Release Overview

Chinese Media Coverage

- 25 Chinese media
- Multiple posts on social media promoting the news
- Total media clips: 50
- Potential readership: 30,000

【腾讯Angel亮相VLD3】传播列表						
序号	类别	媒体名称	平台类型	时间	标题	链接
1	媒体	中新网	网媒	2018年8月29日	腾讯Angel亮相VLD3，腾讯新Angel 2.0宣布加入LF深度学习基金会	http://www.cn.chinanews.com/news/2018/0829/410131.html
2	门户	百家号	客户端	2018年8月29日	腾讯Angel亮相VLD3，腾讯新Angel 2.0宣布加入LF深度学习基金会	https://baijiahao.baidu.com/s?id=131099708149491317&fid=1000046454
3	门户	今日头条	网媒	2018年8月29日	腾讯Angel亮相VLD3，腾讯新Angel 2.0宣布加入LF深度学习基金会	https://www.toutiao.com/a5949682816394376311/?tt_from=android_share
4	科技	Linuxeden开源社区	微博	2018年8月29日	腾讯Angel正式加入LF深度学习基金会，代码库已迁移	https://weibo.com/1660364190/46QdZym?refer_flag=1001030103
5	科技	腾讯开源	公众号	2018年8月28日	【迁移通知】Angel加入基金会 项目迁移至新仓库	https://mp.weixin.qq.com/s/0U2h8edn1OG7e6n5oP5t3v
6	科技	腾讯开源	公众号	2018年8月28日	腾讯Angel亮相VLD3，腾讯新Angel 2.0宣布加入LF深度学习基金会	https://mp.weixin.qq.com/s/X1g3d8z3G8e9n1C33v
7	科技	lupe开源社区	公众号	2018年8月29日	腾讯Angel正式加入LF深度学习基金会，代码库已迁移	https://mp.weixin.qq.com/s/-pG13064o3Z8526339
8	科技	壹快网	网媒	2018年8月28日	腾讯Angel亮相VLD3，腾讯新Angel 2.0宣布加入LF深度学习基金会	http://www.oicdnet.com/29/8/0029/1341806.html
9	科技	懂查	网媒	2018年8月29日	腾讯Angel正式加入LF深度学习基金会，代码库已迁移	http://www.dongchax.com/news/detail-188828.html
10	科技	推酷	网媒	2018年8月29日	腾讯Angel正式加入LF深度学习基金会，代码库已迁移	https://www.51ucel.com/articles/VRdEjw
11	科技	码农网	网媒	2018年8月29日	腾讯Angel正式加入LF深度学习基金会，代码库已迁移	https://www.eodneto.com/a/23233.html
12	科技	开源中国	网媒	2018年8月29日	腾讯Angel正式加入LF深度学习基金会，代码库已迁移	https://www.oschina.net/news/99412/recent-angel-to-join-lf
13	科技	开源中国	网媒	2018年8月29日	腾讯Angel正式加入LF深度学习基金会，代码库已迁移	https://www.oschina.net/news/99412/recent-angel-to-join-lf
14	科技	lupe开源社区	网媒	2018年8月29日	腾讯Angel正式加入LF深度学习基金会，代码库已迁移	http://www.lupeworld.com/article/230609_1.html
15	科技	博看网	网媒	2018年8月29日	腾讯Angel正式加入LF深度学习基金会，代码库已迁移	https://www.eblook.com/a/616682/
16	科技	phpos	网媒	2018年8月29日	腾讯Angel正式加入LF深度学习基金会，代码库已迁移	http://www.phpos.net/sinas/1782.html
17	科技	人工智能中文资讯平台	网媒	2018年8月29日	腾讯Angel正式加入LF深度学习基金会，代码库已迁移	http://www.ai360.cn/news/234999.html
18	科技	linuxeden	网媒	2018年8月29日	腾讯Angel正式加入LF深度学习基金会，代码库已迁移	http://www.linuxeden.com/a/55494
19	科技	j4ml	网媒	2018年8月29日	腾讯Angel正式加入LF深度学习基金会，代码库已迁移	https://www.j4ml.com/s/13190
20	区域	陕西商报网	网媒	2018年8月28日	腾讯Angel亮相VLD3，腾讯新Angel 2.0宣布加入LF深度学习基金会	http://www.sxswb.net/s/2910528/2325.html
21	其他	牛人趣事	网媒	2018年8月29日	腾讯Angel正式加入LF深度学习基金会，代码库已迁移	http://www.niurenqushi.com/news/8/938/33.html
22	技术	掘金	网媒	2018年9月2日	腾讯Angel亮相VLD3，腾讯新Angel 2.0宣布加入LF深度学习基金会	https://juejin.im/post/5b948e72f007404a1e0d96e2
23	技术	CSDN	网媒	2018年9月2日	腾讯Angel亮相VLD3，腾讯新Angel 2.0宣布加入LF深度学习基金会	https://blog.csdn.net/jeason_jeason/article/details/82202242
24	技术	linux中国	网媒	2018年9月2日	腾讯Angel亮相VLD3，腾讯新Angel 2.0宣布加入LF深度学习基金会	https://linux.cn/thread-17761-1-1.html
25	技术	Segmentfault	网媒	2018年9月2日	腾讯Angel亮相VLD3，腾讯新Angel 2.0宣布加入LF深度学习基金会	https://segmentfault.com/a/119000018227851

Summary of Media Coverage to Date

Total articles: 1,268

Total opportunities to see: 429,294,833

Events

Upcoming Events:

- › LF DL and Acumos Day, New York City, November 5, 2018
 - › Registration page should be up within a week
- › Booth at KubeCon Shanghai, November 13-15

Prior Events:

- › Acumos / LF DL Day in Paris, July 2018
- › Acumos / LF DL Day in Vancouver, August 2018

Review of LF DL Activities Since March 2018 Launch

- › Achievements and accomplishments
 - › Community building and initial formation of the Foundation;
 - › Infrastructure established to enable code development
 - › Acumos AI Project TSC and subcommittee meetings and progression towards November release under way
 - › Lifecycle and Project Contribution Process Documents have been finalized by the community
 - › Two additional projects, for a total of three, have been accepted into the LF Deep Learning Foundation
 - › Discussions to enable collaboration with additional projects under way

LF DL Projects

- › We currently have 3 technical projects within the Foundation:
 - › Acumos AI Project
 - › Angel Project*
 - › EDL Project*
- › 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 at www.deeplearningfoundation.org.

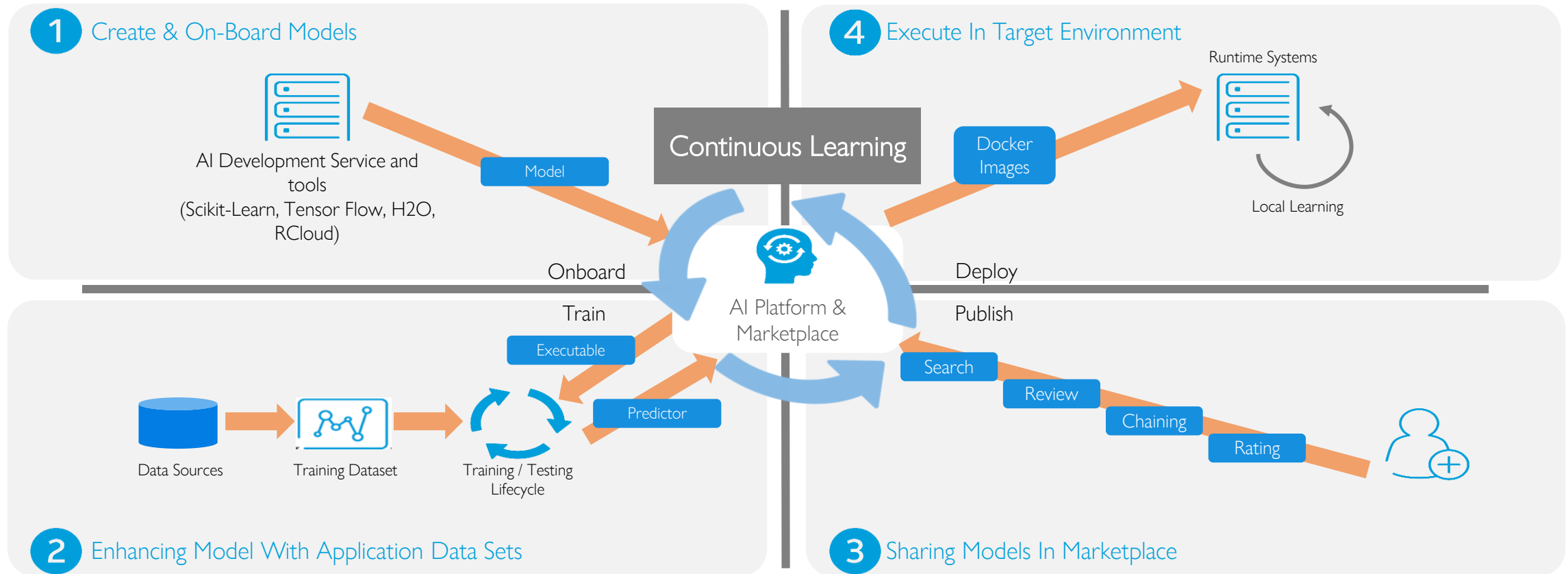
** Incubation-stage projects.*

LF DL Projects

- › Acumos AI Project
 - › AI model workflow and discovery platform
 - › Web site: www.acumos.org
 - › Technical charter: https://www.acumos.org/wp-content/uploads/sites/61/2018/03/charter_acumos_mar2018.pdf
 - › Wiki: wiki.acumos.org
 - › TSC meetings are every Monday, 9:00 am ET
 - › TSC subcommittees are also meeting weekly, and information on those meetings
 - › TSC chair: Jack Murray, jfm@research.att.com

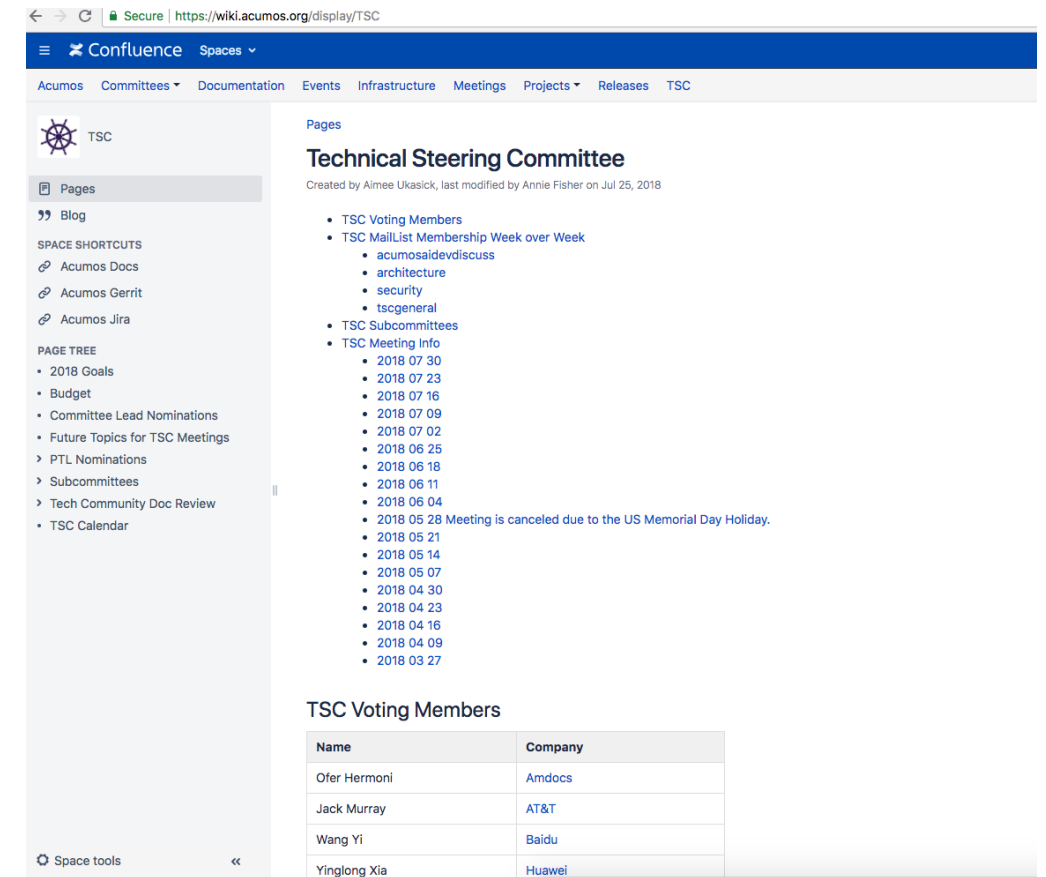
LF DL Projects

Acumos AI Project



LF DL Projects

- › Acumos AI Project – Extensive Resources on wiki.acumos.org

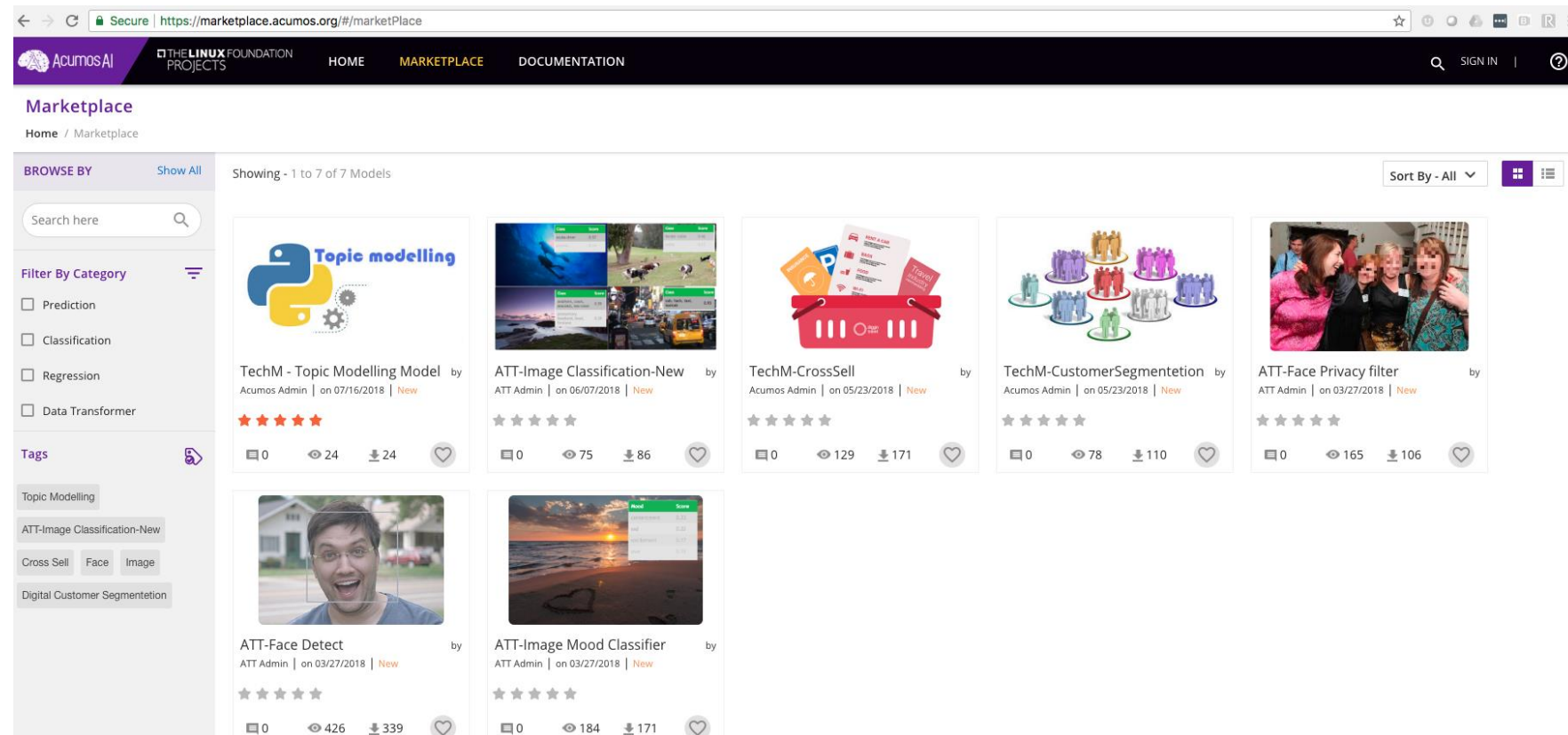


The screenshot shows a Confluence page titled "Technical Steering Committee" (TSC) on the Acumos wiki. The page is part of a space named "TSC" and was created by Aimee Ukasick, last modified by Annie Fisher on Jul 25, 2018. The sidebar on the left contains navigation links for Pages, Blog, and SPACE SHORTCUTS, including links to Acumos Docs, Acumos Gerrit, Acumos Jira, and a PAGE TREE with items like 2018 Goals, Budget, Committee Lead Nominations, Future Topics for TSC Meetings, PTL Nominations, Subcommittees, Tech Community Doc Review, and TSC Calendar. The main content area lists TSC Voting Members and TSC Meeting Info. The TSC Voting Members section includes a table with the following data:

Name	Company
Ofer Hermoni	Amdocs
Jack Murray	AT&T
Wang Yi	Baidu
Yinglong Xia	Huawei

LF DL Projects

› Acumos Marketplace



Acumos AI Project – Areas of Focus

- › Model Interoperability (ONNX, PFA)
- › Licensing
- › Model Validation, how to assure the model is deployable by industry standard practice. Licensing, attribution, software scanning and security, build tracking, and trust
- › Training
- › Data strategy

LF DL Projects

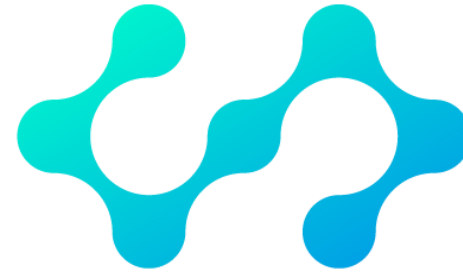


- › Angel Project
 - › GitHub: <https://github.com/Tencent/angel>
 - › > 1,000 commits, 24 contributors
 - › License: Apache-2.0
 - › Lead developer: Fitz Wang, fitzwang@tencent.com
 - › Description:
 - › Angel is a high-performance distributed machine-learning platform based on Parameter Server, running on YARN and Apache Spark. It is tuned for performance with big data/model and has a wide range of applicability and stability, demonstrating increasing advantage in handling higher dimension model. Angel supports big and complex models with billion of parameters.

LF DL Projects

› EDL Project

- › GitHub: <https://github.com/paddlepaddle/edl>
- › 902 commits, 14 contributors
- › License: Apache-2.0
- › Lead developer: Wu Yi, wuyi05@baidu.com
- › Description:
 - › EDL is an Elastic Deep Learning framework designed to help Deep Learning Cloud Service providers to build cluster cloud services using different deep learning frameworks.



EDL
Elastic Deep Learning

LF DL Projects

- › The TAC is actively reaching out to 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!

More Information / How to Get Involved

- › Review the materials on LF Deep Learning Foundation and its project web sites.
- › Technical meetings of the projects supported by LF Deep Learning Foundation are open to the community – join a meeting.
- › The only requirement to participating in a project is compliance with the project's technical charter. If you see a problem you can solve, a feature you can add, or other value you might be able to provide, we encourage you to begin contributing code and other artifacts to the project.
- › TAC meetings are every two weeks and are also open to the public – these can give you a good sense as to project-level priorities and direction of LF Deep Learning Foundation.

Meetings – How to Participate

- › LF DL TAC
 - › Every other Thursday, 9:00 am ET. Next TAC meeting is 10/11/2018
 - › <https://zoom.us/j/113165889>
- › LF DL Outreach
 - › Every other Wednesday, 9:00 am ET. Next Outreach meeting is 9/26/2018
 - › <https://zoom.us/j/995104129>
- › Acumos AI Project TSC
 - › Numerous sub-committee meetings, see wiki.acumos.org for additional information
 - › TSC meets every Monday, 9:00 am ET.
 - › TSC meeting: <https://zoom.us/j/367282276>

Thank You!

› Thank you for your participation in LF DL and its technical projects. If at any time the LF team can provide assistance with respect to LF DL or any of its projects, please reach out to any of us:

› snicholas@linuxfoundation.org

› jserafin@linuxfoundation.org

Questions / Discussion

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