# Meeting of the Technical Advisory Council (TAC)

June 17th, 2021

LF AI & DATA

# Antitrust 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
- Wiki: wiki.lfaidata.foundation
- GitHub: github.com/lfaidata
- Landscape: https://landscape.lfaidata.foundation or https://l.lfaidata.foundation
- Mail Lists: https://lists.lfaidata.foundation
- Slack: https://slack.lfaidata.foundation
- Youtube: https://www.youtube.com/channel/UCfasaeqXJBCAJMNO9HcHfbA
- LF AI Logos: https://github.com/lfaidata/artwork/tree/master/lfaidata
- LF AI Presentation Template: https://drive.google.com/file/d/1eiDNJvXCqSZHT4Zk_-czASlz2GTBRZk2/view?usp=sharing
-
- Events Page on LF AI Website: https://lfaidata.foundation/events/
- Events Calendar on LF AI Wiki (subscribe available): https://wiki.lfaidata.foundation/pages/viewpage.action?pageId=12091544
- Event Wiki Pages: https://wiki.lfaidata.foundation/display/DL/LF+AI+Data+Foundation+Events

# Agenda

- Roll Call  (2 mins)
- Approval of Minutes from June 3rd (3 mins)

- Invited Presentation - Committee Proposal (20 minutes)
  - MLOps (Saishruthi Swaminathan <saishruthi.tn@ibm.com>)
  -
- Invited Presentation (25 minutes)
  - GSI (aakerib@gsitechnology.com, tsahi.levy@gmail.com, ywechsler@gsitechnology.com)

- Electing New TAC Chair (Ibrahim Haddad) (5 minutes)
- Annual Project Review Schedule (Jim Spohrer) (2 minutes)

- LF AI General Updates (1 minutes)
- Open Discussion (1 minutes)

# TAC Voting Members

* = still need backup specified on wiki

| Board Member | Contact Person | Email |
|---|---|---|
| AT&T | Anwar Atfab* | anwar@research.att.com |
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| Huawei | Huang Zhipeng | huangzhipeng@huawei.com |
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| Milvus | Xiaofan Luan | xiaofan.luan@zilliz.com |
| ONNX | Jim Spohrer (Chair of TAC) | spohrer@us.ibm.com |
| Pyro | Fritz Obermeyer* | fritz.obermeyer@gmail.com |

# Approval of June 3rd, 2021 Minutes

Draft minutes from the June 3rd TAC call were previously distributed to the TAC members via the mailing list

**Proposed Resolution:**

- That the minutes of the June 3rd meeting of the Technical Advisory Council of the LF AI & Data Foundation are hereby approved.

# MLOps Committee Proposal

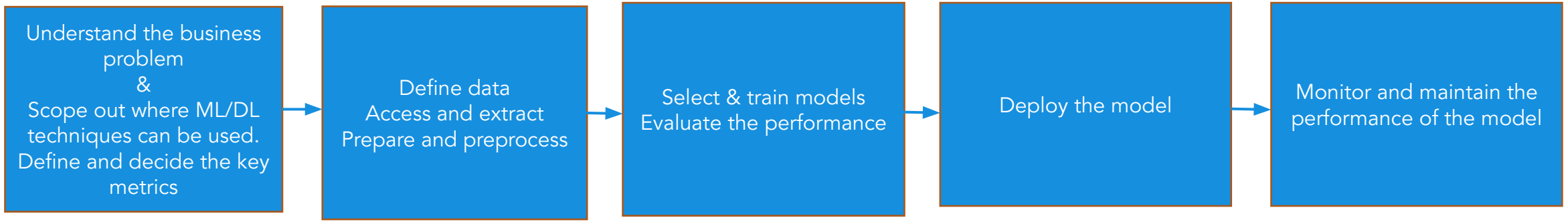
Saishruthi Swaminathan
saishruthi.tn@us.ibm.com

LF AI & DATA

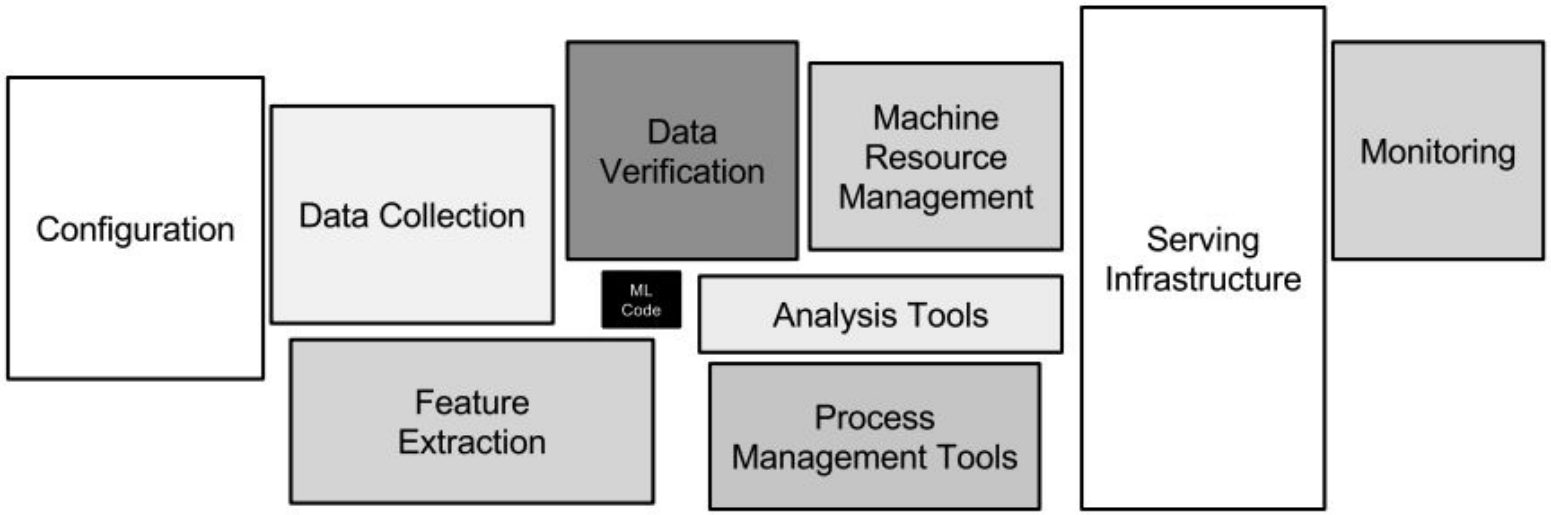
# MLOps

Set of tools and principles to support machine learning project lifecycle

# ML Lifecycle



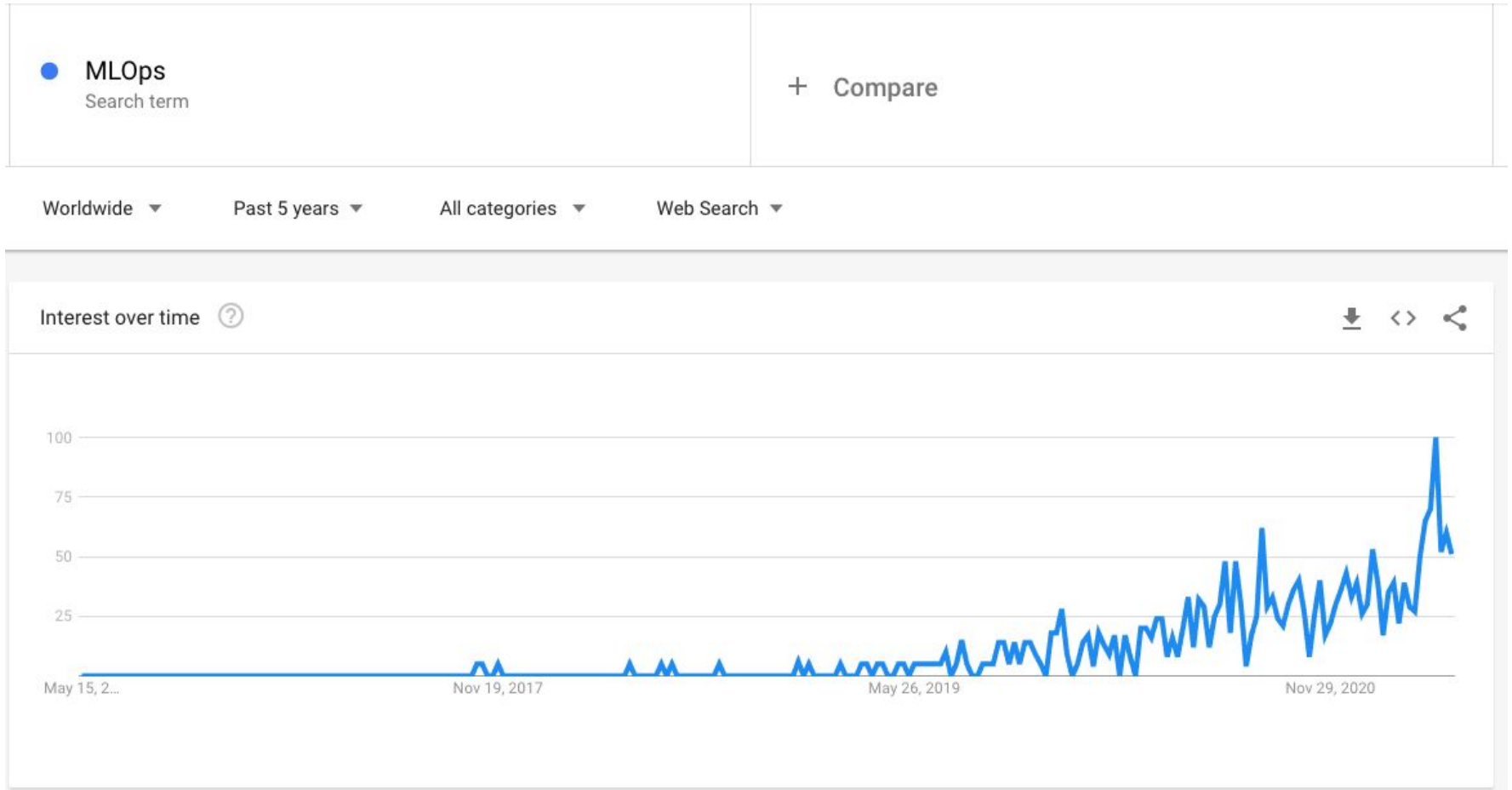
# Hidden Technical Debt in ML Systems




→ MLOps

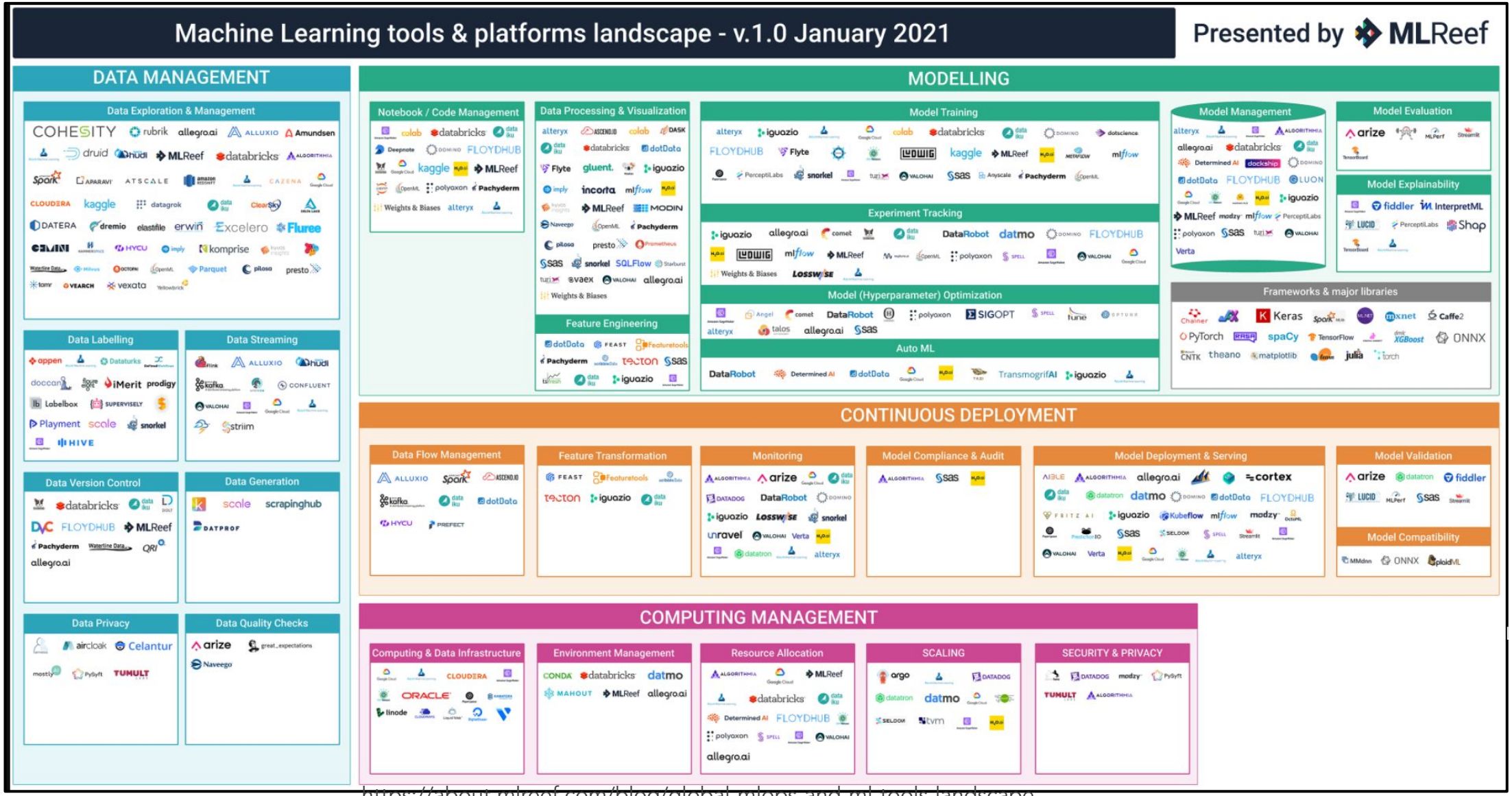
https://papers.nips.cc/paper/2015/file/86df7dcfd896fcaf2674f757a2463eba-Paper.pdf

# Current Trend Worldwide




https://trends.google.com/trends/explore?date=today%205-y&q=MLOps

# Key Projects in MLOps Space




https://about.mlreef.com/blog/global-mlops-and-ml-tools-landscape

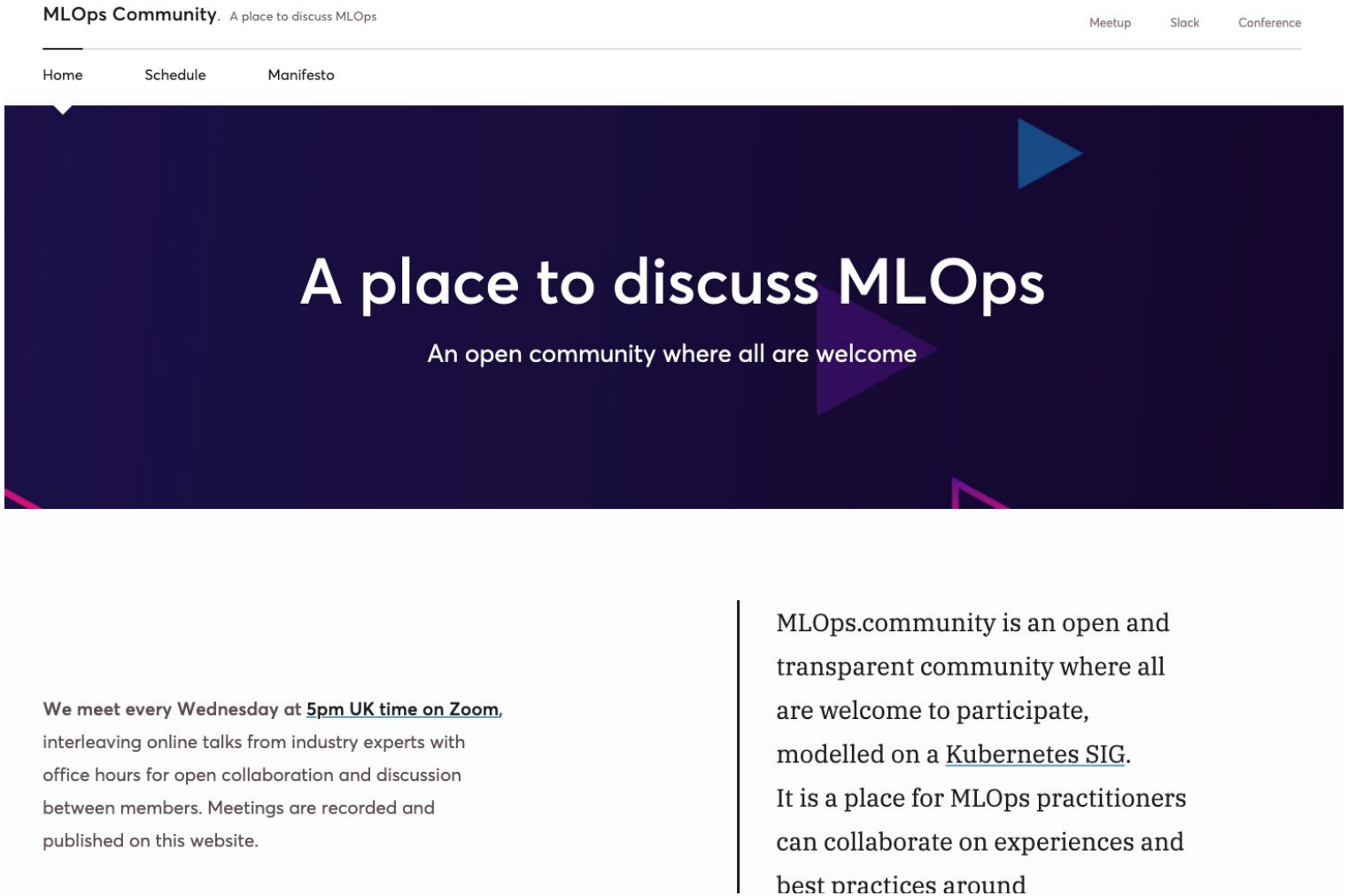
# LF AI & Data Mission

## How MLOps fit in LF AI & Data Scope

### ABOUT LF AI & Data

LF AI & Data is an umbrella foundation of the Linux Foundation that supports open source innovation in artificial intelligence, machine learning, deep learning, and data. LF AI & Data was created to support open source AI, ML, DL and Data, and to create a sustainable open source AI ecosystem that makes it easy to create AI and Data products and services using open source technologies. We foster collaboration under a neutral environment with an open governance in support of the harmonization and acceleration of open source technical projects.

# Popular effort in MLOps




https://awesomeopensource.com/project/visenger/awesome-mlops

# Proposal to Kick off MLOps Committee in LF AI & Data

LF AI & DATA

# Based on survey conducted with TAC members

- Provide exposure on different industrial approaches
- Gather current practices and create a template architecture that can be a base for organizations trying to adopt MLOps.
- What are the Open Source MLOps project? What are each one's pros and cons?
- Data centric MLOps  approach
- Use Case based approach. Learn technology through a use case
- Current industry issues in getting models to production and how to tackle as a community?

# MLOps Committee Proposed Focus Areas

Exposure on industrial approaches for managing ML models in production

Create template architecture for managing ML project lifecycle

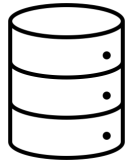
Identify Projects and tools in MLOps Space

Get community exposed to how these MLOps tools work together and where to use in the pipeline

Understand usage of MLOps tools and practices through industrial
use cases (by domain)

Identify gaps in the use case implementation

Discuss solutions that can fill the gap



Take data centric Approach in managing ML model performance in production

Learn tools and best practices on data centric approach

Provide opportunity for committee members to to do research together

Advocate about the work

# TBD

- MLOps relationship to existing Committees
- MLOps relationship to existing Projects

# Thank You

- Michael Tanenbaum
- Ludan Stoecklé
- Vishnu
- Adam Pocock
- DC Martin
- Sebastian Lehrig
- Nancy Rausch
- Meng Wei
- Yuan Liya

- Jim Spohrer
- Ibrahim Haddad

# TAC Vote on MLOps Committee Proposal

**Proposed Resolution:**

The TAC approves establishing the MLOps Committee in LF AI & Data Foundation

# Next Steps

The Governing Board will review the MLOps proposal and vote on approving the formation of the committee.

After a positive vote from the GB, LF AI & Data staff will work to establish the committee and launch its efforts.

# Invited Presentation - GSI

Jaakerib@gsitechnology.com, tsahi.levy@gmail.com, ywechsler@gsitechnology.com

LF AI & DATA


GSI Technologies

# ASSOCIATIVE PROCESSOR

## FOR IN MEMORY *ULTRA FAST - LOW LATENCY* VECTOR SEARCH AND PARALLEL COMPUTING

JUNE 2021 - AVIDAN AKERIB VP ASSOCIATIVE COMPUTING BU, GSI TECHNOLOGY

GSI TECHNOLOGIES

# TODAY'S AGENDA

01 INTRODUCTION

02 APU TECHNOLOGY

03 APU USE CASES & PERFORMANCE

04 ELASTIC SEARCH AND MILVUS SUPPORT

05 DEMO

06 Q & A

# LEADER IN SUPPLYING HIGH PERFORMANCE MEMORIES TO DEMANDING INDUSTRIES

## SUCH AS AEROSPACE, DEFENSE AND HIGH-PERFORMANCE DATACENTERS.


**01**

### Public Company

Founded in 1995
Consistent profitability & zero debt,

**02**

### ~150 Employees Worldwide.

Design / R&D in Sunnyvale, CA & Israel (50 emp);
Operations and Manufacturing in Taiwan

**03**

### High Performance Associative Computing

Developed the APU, Massively Parallel Processor for big data similarity search, based on Computational Memory technology.

*Acquired MikaMonu and its Associative Computing IP in 2015.*

# GSI OFFERING

Genuine Patented GP Acceleration Hardware: Associative Processor Unit (APU)

## APU UNIQUENESS

Ultra Fast Vectors Search

In Memory Computing with 2 Million Bit Line Processors

Compute by Content instead by Address


## BEST FOR

- **HP-PC** *(High Performance Parallel Computing Tasks)*
- **Big Data Vectors** Search & Analytics Tasks
- **AI – KNN,** Zero shot learning

# ACCELERATING TIME AND SAVING MONEY

By the numbers

# POWER-PERFORMANCE vs INTEL XEON/ NVIDIA V-100

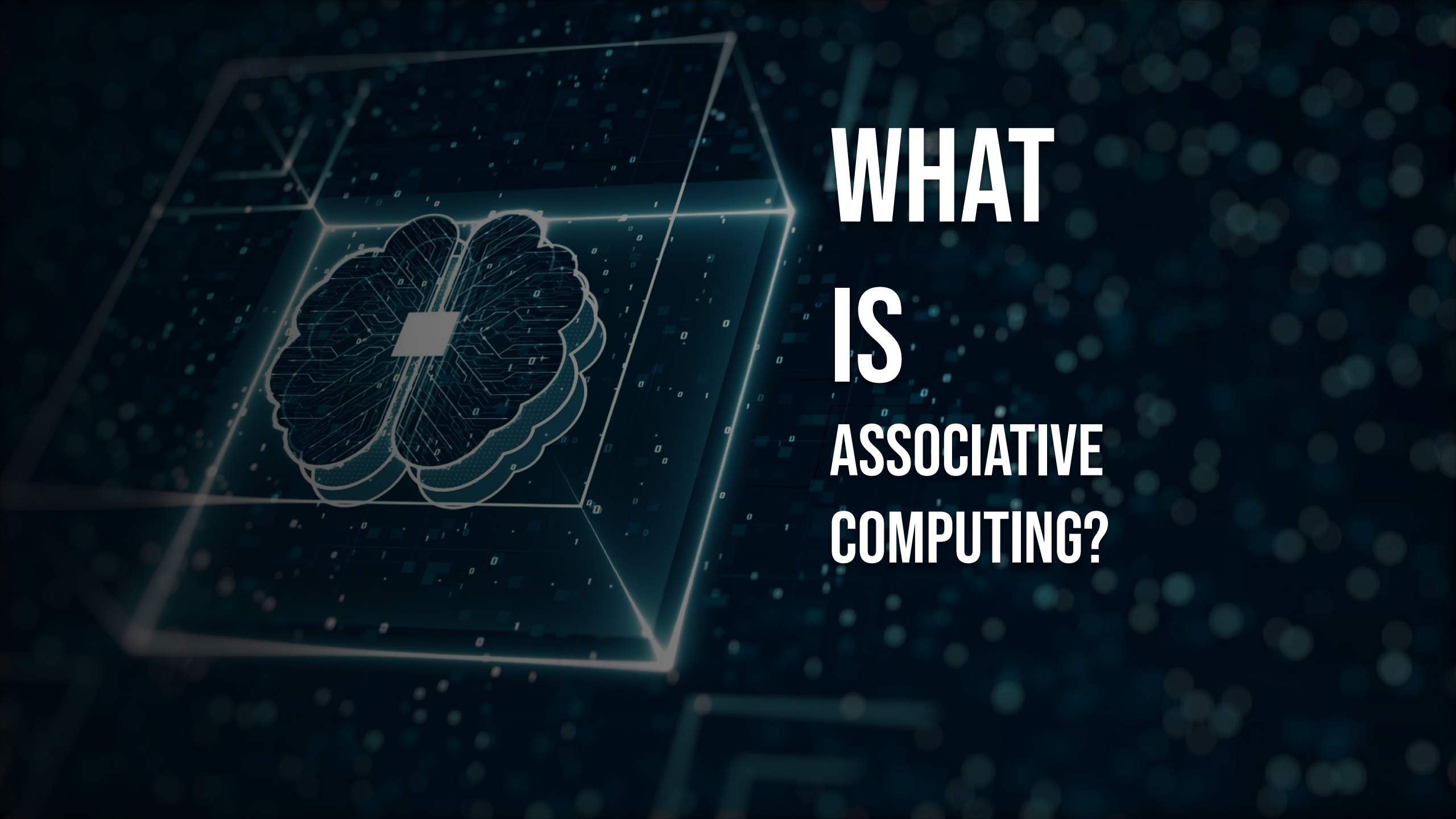


## X 100-1000

VECTOR SEARCH APPLICATIONS

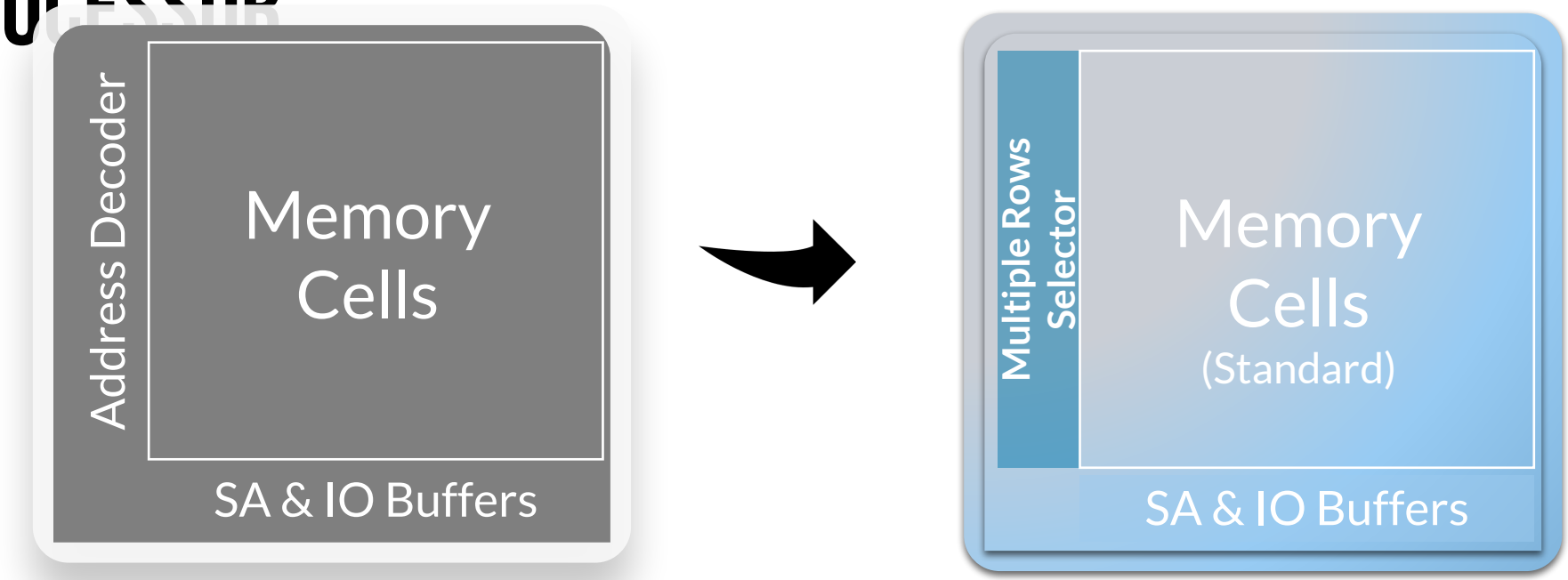
## X 10-100

HIGH PERFORMANCE COMPUTING


WHAT
IS
ASSOCIATIVE
COMPUTING?

# HOW DO WE DO IT?

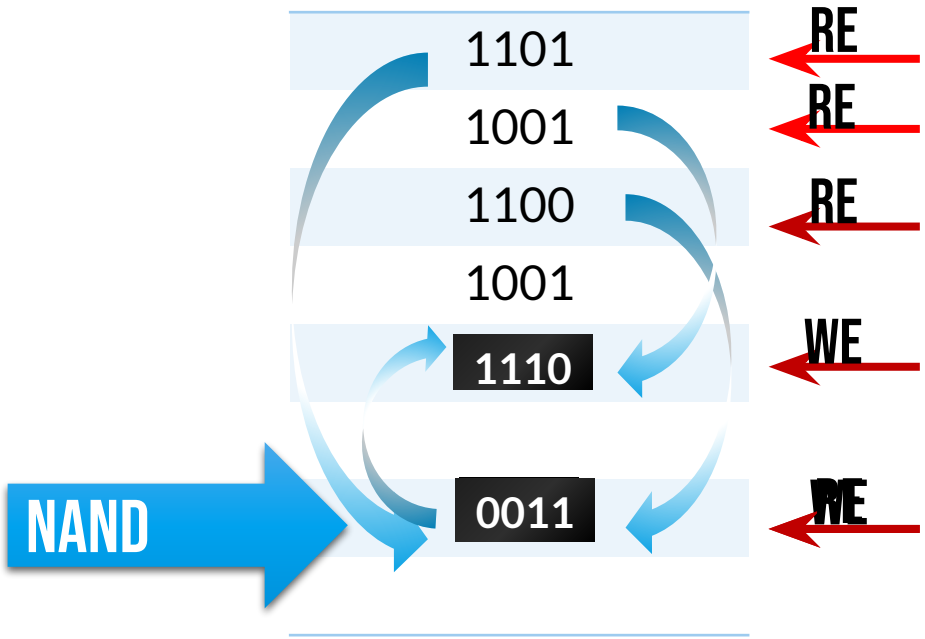
## WE CONVERT STANDARD MEMORY TO PARALLEL CO-PROCESSOR




## THROUGH SMART MODIFICATION OF THE ADDRESS DECODER

# A NEW APPROACH

## ACCESSING MULTIPLE ROWS SIMULTANEOUSLY

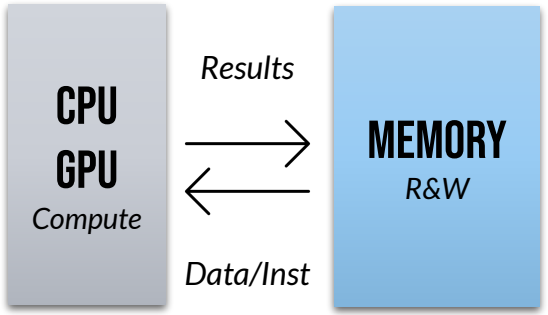


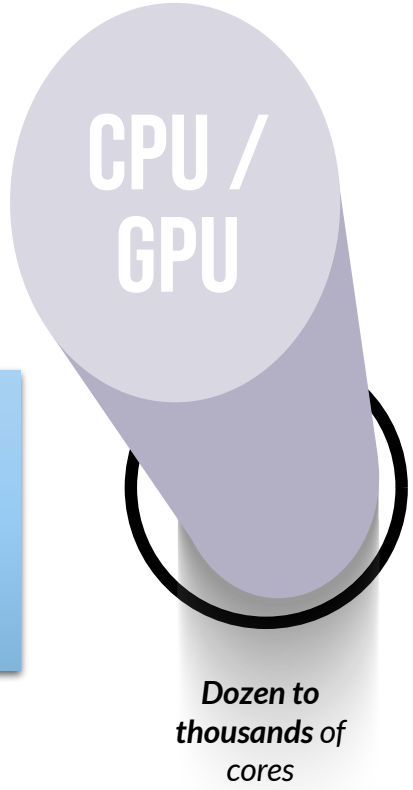

In-Memory NAND gate, satisfying De-Morgan's law

## 1 PETA BOOLEAN FUNCTION /SEC IN A SINGLE 50W CHIP

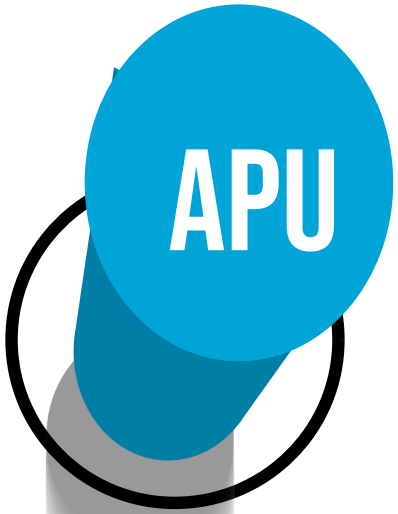
# CHANGING THE CONCEPT OF COMPUTING

## SERIAL DATA PROCESSING



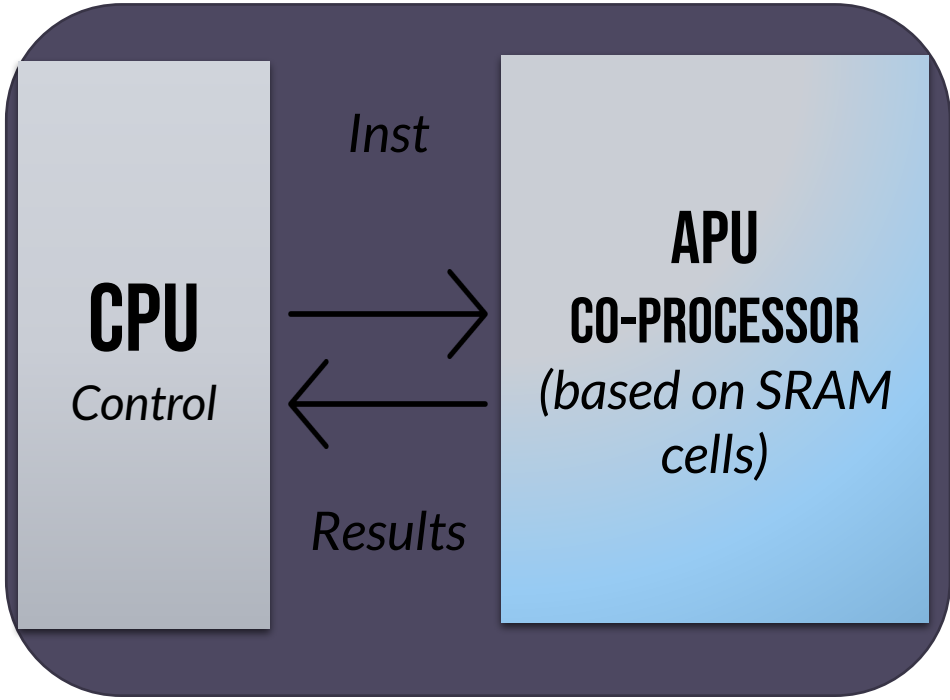




***Dozen to thousands** of cores*




***Millions** of bit line Processors small form factor*

## ASSOCIATIVE COMPUTING



# APU PILLARS

## ULTIMATE PROCESSING POWER SOURCE FOR SIMILARITY SEARCH

Euclidean distance, inner product, Hamming distance, Jaccard distance, Tanimoto.,

## SEAMLESS API FOR ANY SIMILARITY LIBRARY FOR FAST RETRIEVAL SUPPORT

FAISS, ANNOY, HNSWLIB and proven to be the best retrieval engine across various scenarios.

## BEST OF BREED DESIGNED FOR MASSIVE DATA CENTERS

The APU chip is a very compact, low-power, high-speed

## CLOUD >>EDGE>> ON-PREMISE

any kind of deployment of standard cards making it easy to manage similarity search

## SEARCH AND MANAGE ANY VECTOR TYPE

Any kind of data type APU supports any bitsize of any type

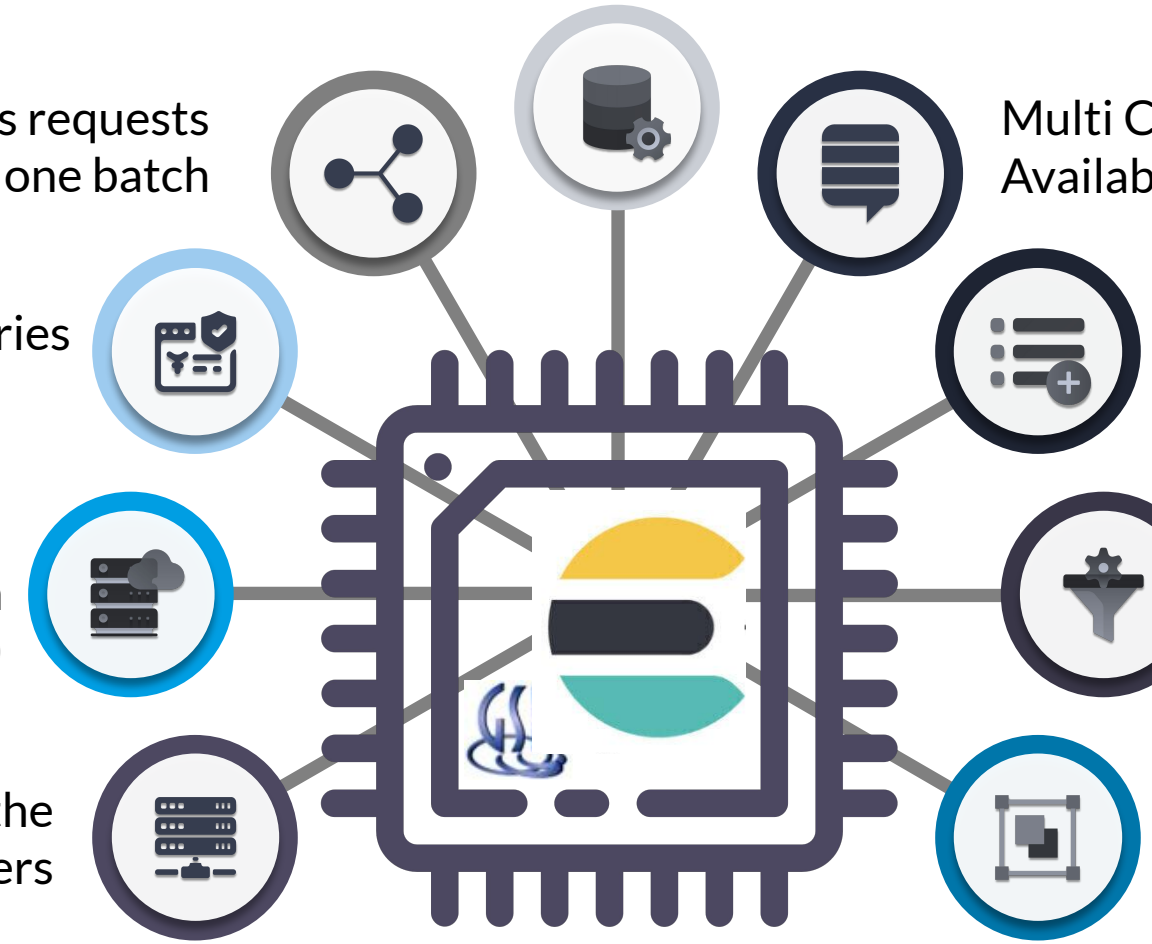

CURRENT
USE
AND
PERFORMANCE
CASES


GSI Technologies

# ELASTIC SEARCH

## GSI PLUGIN FEATURES

# FEATURES



Multiple databases support

Multiple client's requests support as one batch

Multi Chassis / High Availability

Multiple queries

Add / Remove to/from Dataset

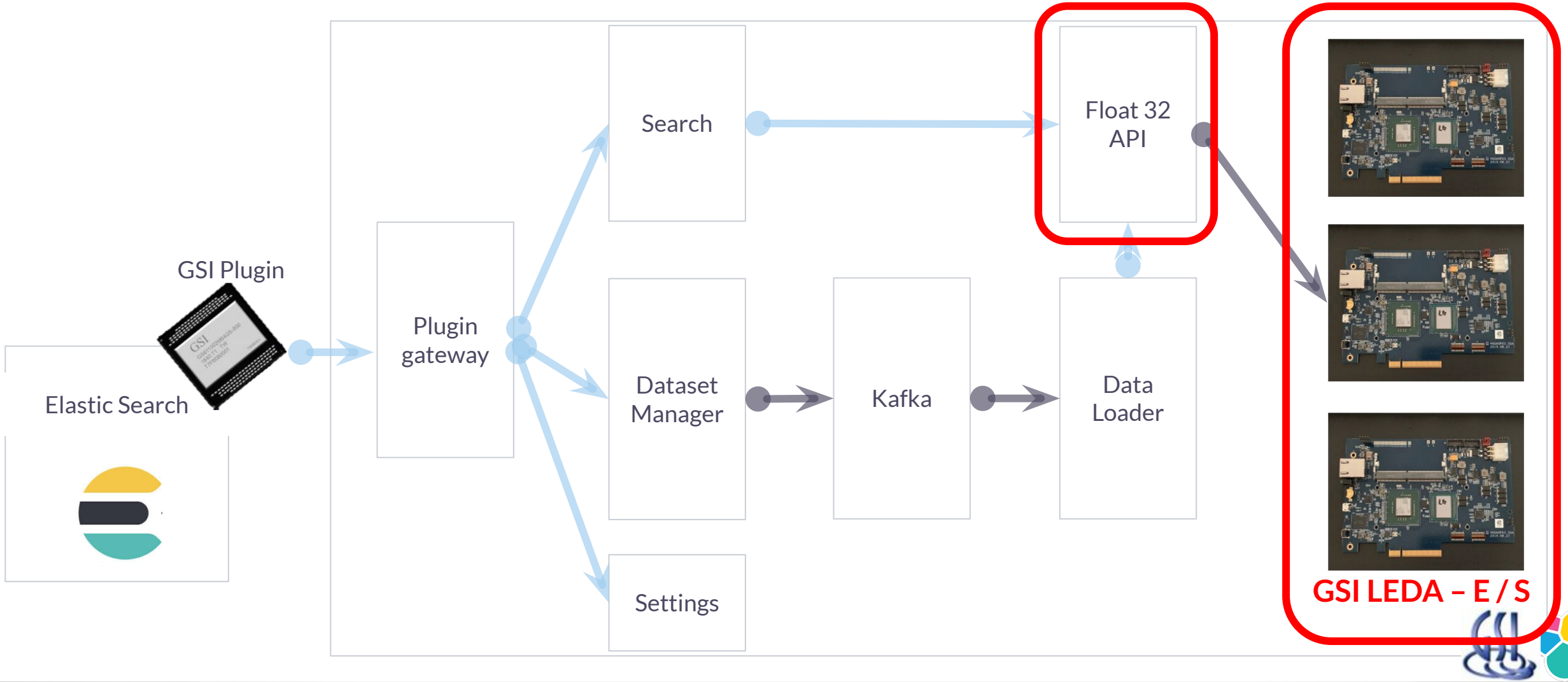
All public clouds supported (currently AWS installation tested )

Apply a filter on an index before executing the nearest neighbor search

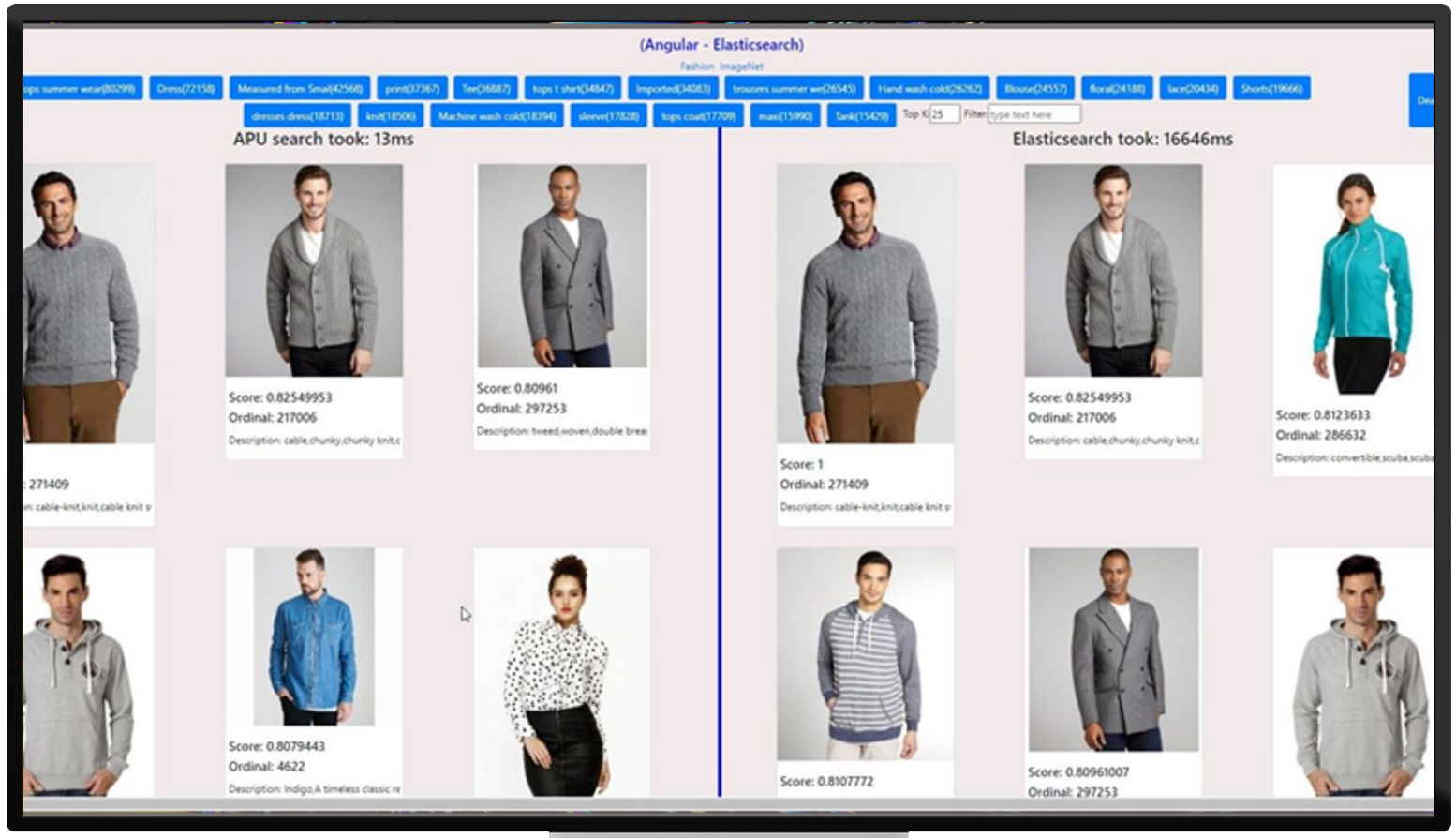
Fully deploys servers at the GSI data center servers

Kubernetes

# GSI - ELASTIC SEARCH PLUGIN



# ELASTIC SEARCH DEMO




GSI Technologies

# Milvus APU INTEGRATION

# APU INTEGRATION

## APU INTEGRATED INTO MILVUS AS ANOTHER RESOURCE IN ADDITION TO CPU AND GPU.

### PHASE 1:

Support flat Tanimoto/Hamming binary search over APU.

SEARCH FLOW


### USER TRIGGER A SEARCH REQUEST

Binary query

### REQUEST SCHEDULER

Adding the request to a request queue.

### MILVUS SEARCH JOB

### MILVUS TASK

Resource allocation using new APU pass

Assign GSI Tanimoto/Hamming index.

### TANIMOTO/HAMMINSEARCH OVER APU

**Load**

Load a binary data set once when triggering the first search.

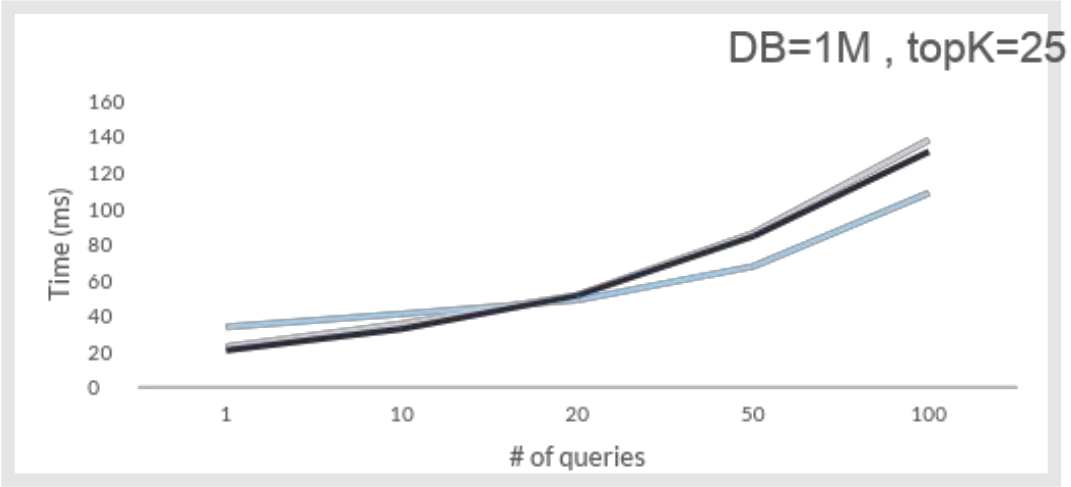
Initial GSL objects.

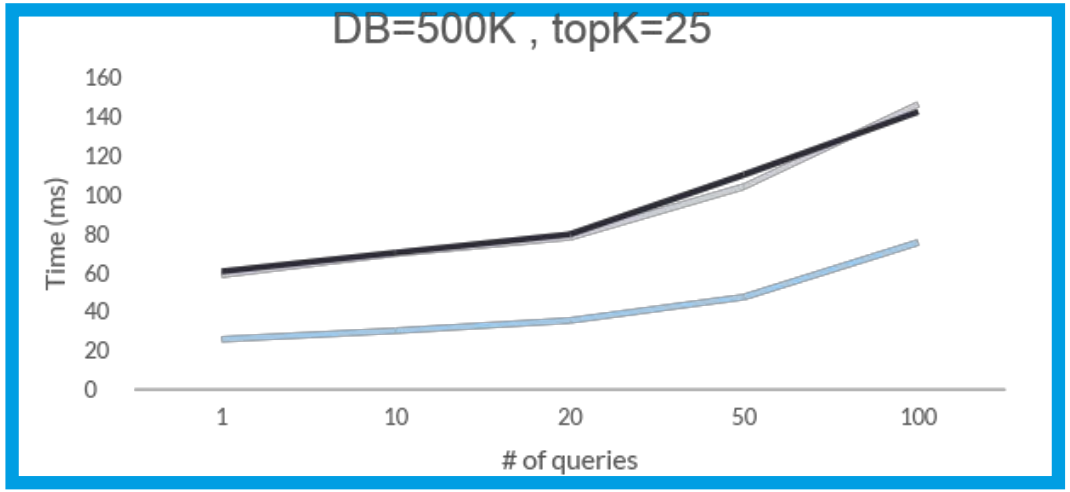
Support data set switch.

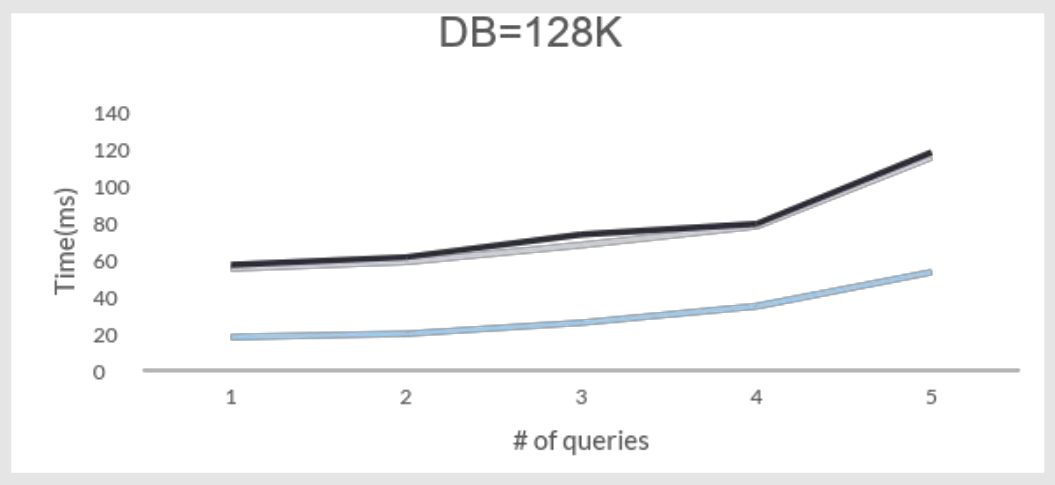
**Execute**

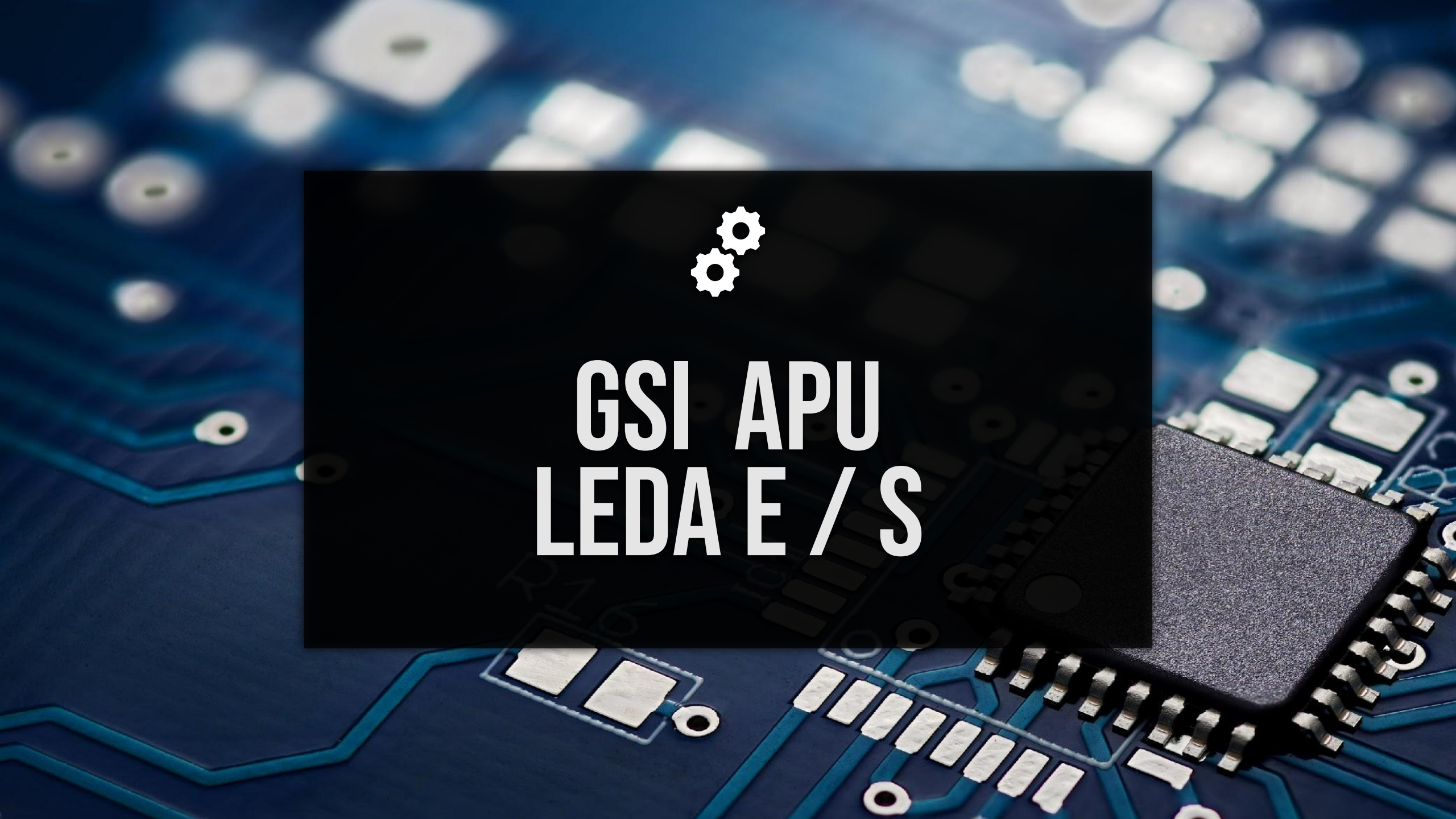
Execute a Hamming/Tanimoto flat search over APU .

# SEARCH RESULTS




GSI APU
LEDA E / S

# GSI CARDS: LEDA-E & LEDA-S

## LEDA-S

The Gemini® APU is attached to GSI's LEDA-S

GSI LEDA-S is a SSD PCIe Gen 2 x 4 board.

- Width: 34mm
- Length: 273 mm
- Thickness: 18 mm

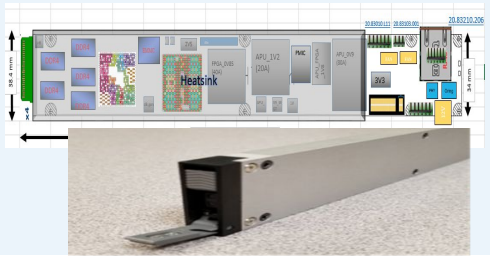
**Environment Specifications**

- Operating temperature: $0^0$ C to $+45^0$ C
- Storage temperature: $-25^0$ C to $+60^0$ C
- Humidity: 10% to 90% non-condensing

Clock: target 500Mhz

Power: Up to 50Watt

Weight: 250g




## LEDA-E

The Gemini® APU is attached to GSI's LEDA-E

GSI LEDA-E is a PCIe Gen 3 x 8 board.

- Width: 111.15mm
- Length: 265 mm
- Thickness: 1.8 mm

**Environment Specifications**

- Operating temperature: $0^0$ C to $+45^0$ C
- Storage temperature: $-25^0$ C to $+60^0$ C
- Humidity: 10% to 90% non-condensing

Clock target : 500Mhz

Power: Up to 90Watt

**Weight: 400g**

# GSI SERVERS: LEDA-S & LEDA-E

## LEDA-S SERVER

- 4 1U Rackmount
- 4 16 Hot-swap E1.L 18mm drive slots
- 4 16 GSI LEDA-S Boards

## LEDA-E SERVER

- 4 2U Rackmount
- 4 8 x PCIe Gen 3 x 8 slots
- 4 8 x GSI LEDA-E Boards


THANK
YOU

# LF AI & Data - TAC Election

Jacqueline Cardoso (LF)

LF AI & DATA

# TAC Chairperson Election

There is an opening for the **LF AI & Data Foundation TAC Chairperson**; the role will be effective through 2021. Eligible voting members are listed on the TAC wiki **here**. **Please review the following election timeline:**

- *Nomination period start:* May 27th, nominations should include a short bio + statement of intent
- *Nomination period end:* June 3rd, 5pm ET
- *Voting period start:* June 7th, LF to send slate of respective nominees and voting instructions to TAC Voting Members
- *Voting period end:* June 14th, 5pm ET
- *Election winner to be announced:* June 15th

**Information about the role:**

- General TAC and Chairperson details can be viewed within the LF AI & Data Charter under section 7 here - A summary of the role:
- Represent the TAC as a voting member on the Governing Board (will attend monthly meeting)
- Lead TAC agenda and meetings with coordination among the TAC representatives and broader community
- Attend sync meetings with LF AI & Data staff to discuss overall TAC activities and planning
- General representation of the TAC and the LF AI & Data technical community

# LF AI & Data - Annual Project Reviews

Jim Spohrer (TAC), John Mertic (LF)

LF AI & DATA

## Annual Review schedule

| Date | Project |
|---|---|
| April 6, 2021 | Egeria |
| April 6, 2021 | OpenDS4all |
| May 20, 2021 | ONNX |
| July 15, 2021 | Acumos |
| July 29, 2021 | Angel |
| July 29, 2021 | Adlik |
| Aug 26, 2021 | EDL |
| Aug 26, 2021 | Sparklyr |
| Sept 9, 2021 | Marquez |
| Sept 9, 2021 | Milvus |
| Sept 23, 2021 | NNStreamer |
| Sept 23, 2021 | ForestFlow |
| Oct 7, 2021 | Ludwig |
| Oct 7, 2021 | Amundsen |
| Oct 21, 2021 | AI Fairness 360 |
| Oct 21, 2021 | AI Explainability 360 |
| Oct 21, 2021 | Adversarial Robustness Toolbox |
| Nov 4, 2021 | Horovod |
| Nov 4, 2021 | FEAST |
| Nov 18, 2021 | SOAJS |
| Nov 18, 2021 | Delta |
| Dec 2, 2021 | DataPractices.org |
| Dec 2, 2021 | JanusGraph |
| Dec 16, 2021 | Pyro |
| Jan 6, 2021 | Datashim |
| Jan 6, 2022 | Flyte |
| Jan 20, 2022 | RosaeNLG |
| Jan 20, 2022 | SubstraFramework |
| | MLX |
| | VulcanKompute |

Schedule: https://wiki.lfaidata.foundation/pages/editpage.action?pageId=43286684

# LF AI & Data - General Updates

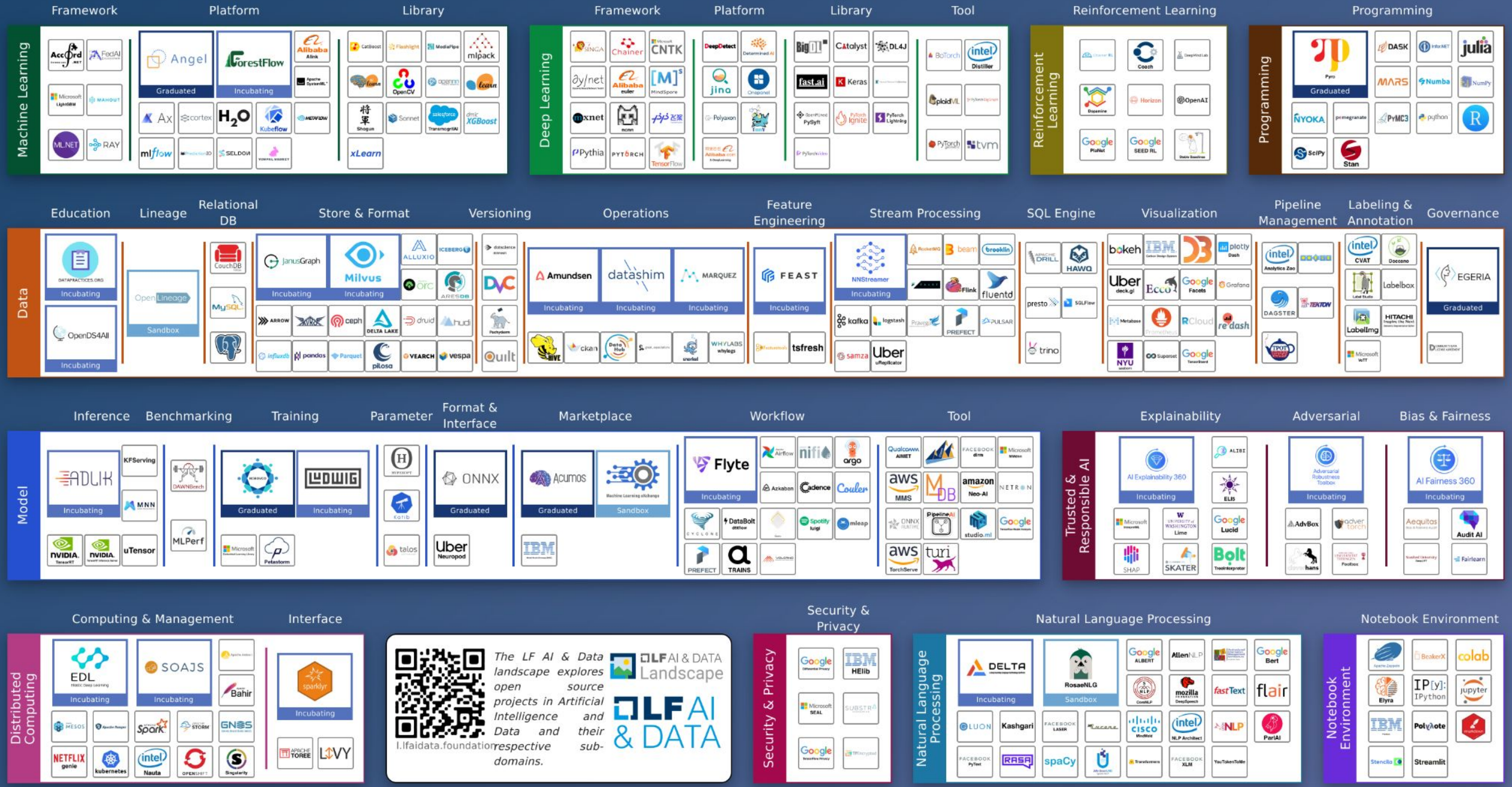
LF AI & DATA

# Linux Foundation AI & Data Landscape

2021-05-31T06:16:56Z b4698f9

See the interactive landscape at l.lfaidata.foundation

Greyed logos are not open source




Machine Learning
Framework
Platform
Library
Angel
Graduated
ForestFlow
Incubating
Deep Learning
Framework
Platform
Library
Tool
Reinforcement Learning
Reinforcement Learning
Programming
Programming
Pyro
Graduated
Data
Education
DATAPRACTICES.ORG
Incubating
OpenDS4All
Incubating
Lineage
OpenLineage
Sandbox
Relational DB
Store & Format
JanusGraph
Incubating
Milvus
Incubating
Versioning
Operations
Amundsen
Incubating
datashim
Incubating
MARQUEZ
Incubating
Feature Engineering
FEAST
Incubating
Stream Processing
NNStreamer
Incubating
SQL Engine
Visualization
Pipeline Management
Labeling & Annotation
Governance
EGERIA
Graduated
Model
Inference
ADLIK
Incubating
Benchmarking
Training
Graduated
LUDWIG
Incubating
Parameter
Format & Interface
ONNX
Graduated
Marketplace
Acumos
Graduated
Sandbox
Workflow
Flyte
Incubating
Tool
Trusted & Responsible AI
Explainability
AI Explainability 360
Incubating
Adversarial
Adversarial Robustness Toolbox
Incubating
Bias & Fairness
AI Fairness 360
Incubating
Distributed Computing
Computing & Management
EDL
Incubating
SOAJS
Incubating
Interface
sparklyr
Incubating
l.lfaidata.foundation
The LF AI & Data landscape explores open source projects in Artificial Intelligence and Data and their respective sub-domains.
LF AI & DATA Landscape
LF AI & DATA
Security & Privacy
Security & Privacy
Natural Language Processing
Natural Language Processing
DELTA
Incubating
RosaeNLG
Sandbox
Notebook Environment
Notebook Environment

# 2020 TAC Meetings Summary

Months

| | | | |
|---|---|---|---|
| Jan<br>Feb<br>Mar | 16: Milvus (Zilliz)* | *13: MLOps Work (LF CD)*<br><br>*27: Collective Knowledge (Coral Reef)* | 12: NNStreamer (Samsung)*<br><br>26: ForestFlow (?)* |
| Apr<br>May<br>Jun | *9: Trusted AI & ML Workflow (LF)*<br><br>*23: Open Data Hub (Red Hat)* | 7: Ludwig (Uber)*<br><br>*21: SnapML (IBM)* | *4: Trusted AI (AI for Good, Ambianic.ai, MAIEI)*<br><br>18: Fairness, Explainability, Robustness (IBM)* |
| Jul<br>Aug<br>Sep | *16: Mindspore (Huawei)*<br><br>30: Amundsen (Lyft)* | *16: Delta (Didi)*<br>**16: Horovod (Uber/LF)****<br>*30: ModelDB (?)*<br>*30: Egeria, OpenDS4All, BI&AI (LF ODPi)* | 10: SOAJS (HeronTech)*<br>10: Delta (Didi)*<br>24: FEAST (Gojek)*<br>**24: Egeria, (LF ODPi)****<br>24: OpenDS4All (ODPi)*<br>24: BI&AI Committee (ODPi) |
| Oct<br>Nov<br>Dec | *8: Fairness, Explainability, Robustness (LF)*<br><br>*22: OpenLineage (DataKins)*<br>*22: IDA (IBM/Salesforce)* | 5: DataPractices.Org (WorldData/LF)*<br>*5: Kubeflow-On-Prem (Google,Arrikto/Intel)*<br><br>*19: OpenDS4All, DataPractices.Org, edX Ethical AI (LF)* | 3: TBD - JanusGraph (LF)*<br>*3: TBD - RosaeGL (?)*<br><br>17: TBD – Seldon Core (Seldon)*<br>**17: TBD – Pyro (Uber/LF)**** |

(Entity)* = incubating vote

** **bold = graduate vote**

*Italics = invited project presentation*

# 2021 TAC Meetings Pipeline Summary

Months

| | | | |
|---|---|---|---|
| Jan<br>Feb<br>Mar | 14: Datashim(IBM)*<br>28: Project Lifecycle Stages vote<br>Invited talks Sedna & CIM | 11: Invited talks Egeria CI & Mentorships<br>25: Flyte (Lyft) * | 11: RosaeNLG () Sandbox Proposal<br>Invited talk Elyra-AI (IBM)<br>25: Substra Framework (Substra)* |
| Apr<br>May<br>Jun | 8: Invited talk JINA AI<br>22: Egeria & OpenDS4All - project update | 6: ML eXchange (MLX) (IBM) Sandbox<br>Vulcan Kompute () Sandbox<br>20: OpenLineage (Datakin) Sandbox | 3: KOSA.ai<br>17: GSI |
| Jul<br>Aug<br>Sep | 1: Canceled for holiday<br>15: TonY (Linkedin) | 5: TBD - Project updates<br>19: TBD - Project updates | ?: Open Data Hub (Red Hat)<br>? Ray (Anyscale.io)<br>?: Pachyderm (Pachyderm)<br>?: DataHub (LinkedIn)<br>?: Kubeflow-On-Prem (Google, Arrikto, Intel) |
| Oct<br>Nov<br>Dec | ?: Vespa (Verizon Media)<br>?: KubeflowServing (Google, Arrikto, Seldon)<br>?: Kubeflow Pipeline (Google, Bloomberg)<br>?: Common Knowledge (Code Reef)<br>?: Couler (Ant Financial) | ?: Snorkle (Snorkle)<br>?: Plotly (DASH)<br>?: Mellody (Substra)<br>?: mloperator (Polyaxen)<br>?: SnapML (IBM) | ?: PMML/PFA (DMG.org)<br>?: Mindspore, Volcano (Huawei)<br>?: TransmorgrifAI (Salesforce)<br>?: AIMET (Qualcomm)<br>?: Elyra-AI (IBM) |

(Entity)* = incubating vote

** **bold = graduate vote**

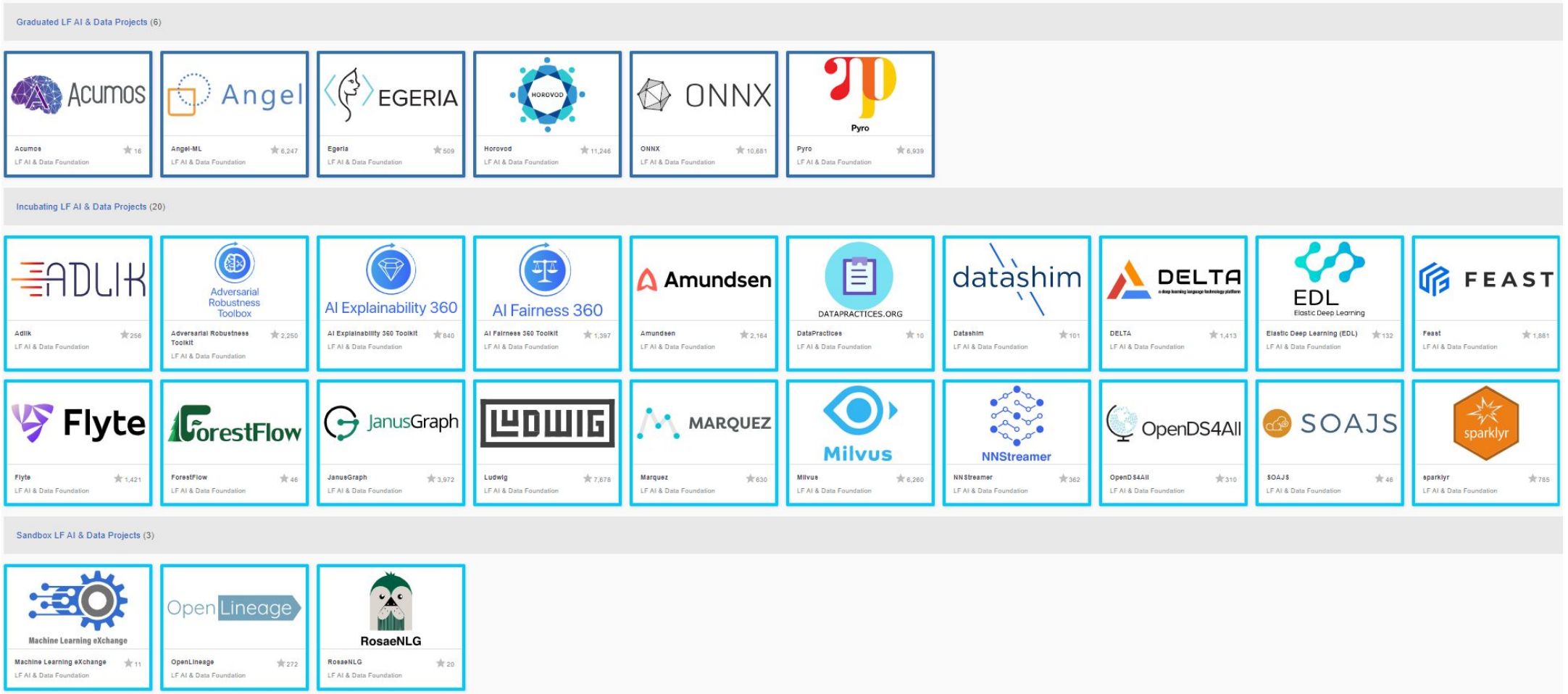
*Italics = invited project presentation*

# Getting to know the projects more

LF AI & DATA

# Projects

https://landscape.lfai.foundation/card-mode?project=company




* Missing Substra Framework (pending logo redesign)

# New projects in 2021

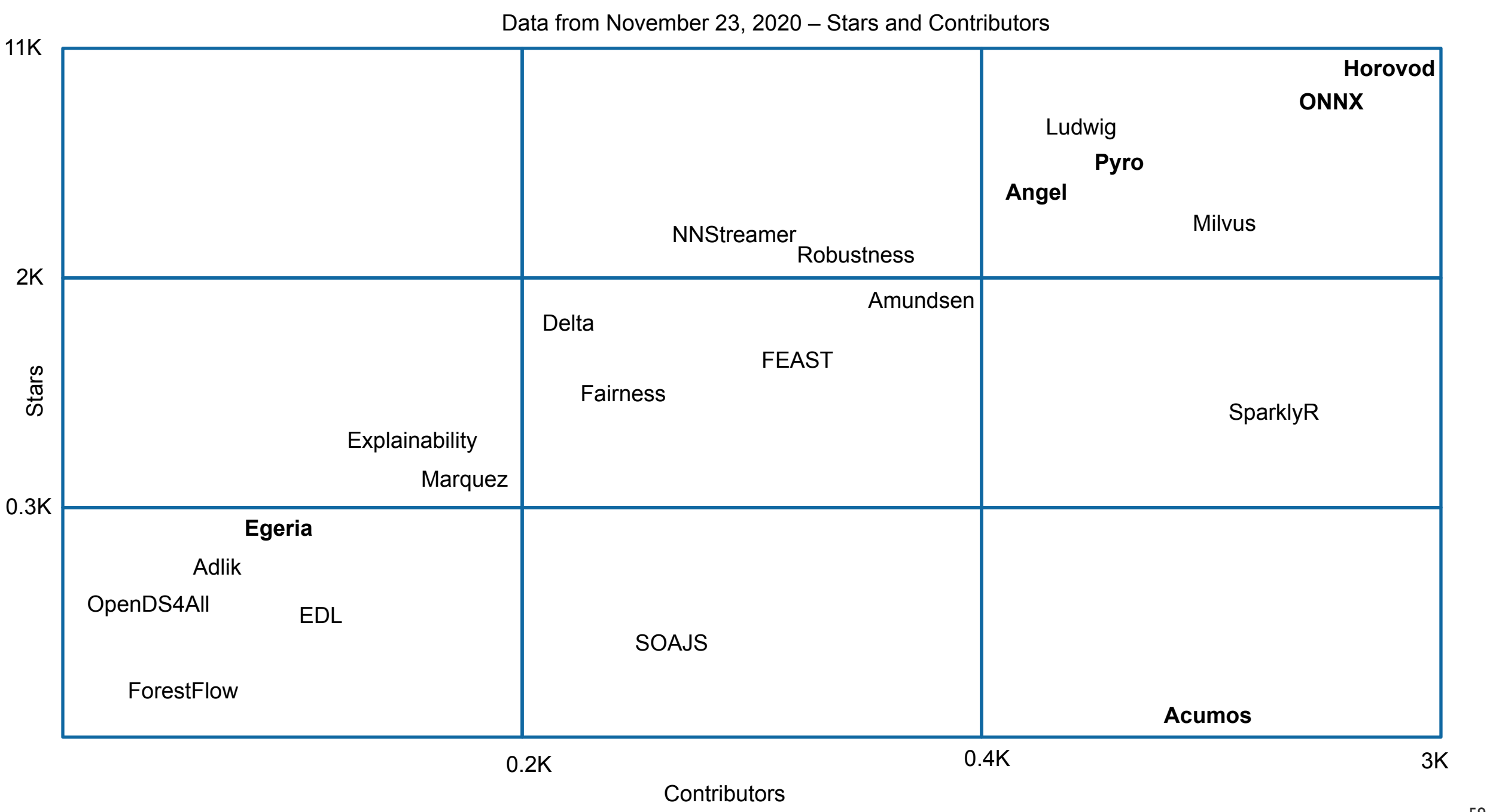
→ Track incoming proposals via: https://github.com/lfai/proposing-projects

1. **Datashim:** Open source enablement and acceleration of data access for Kubernetes/Openshift workloads in a transparent and declarative way
2. **Flyte:** Production-grade, declarative, structured and highly scalable cloud-native workflow orchestration platform
3. **RosaeNLG:** Open source project, template-based Natural Language Generation (NLG) automating the production of relatively repetitive texts based on structured input data and textual templates, run by a NLG engine
4. **Substra Framework:** Low-layer framework, offering secure, traceable, distributed orchestration of machine learning tasks among partners.
5. **ML eXchange:** Data and AI Assets Catalog and Execution Engine
6. **Kompute: Blazing fast, mobile-enabled, asynchronous, and optimized for advanced GPU processing usecases.**
7. **Open Lineage:** Open standard for metadata and lineage collection designed to instrument jobs as they are running

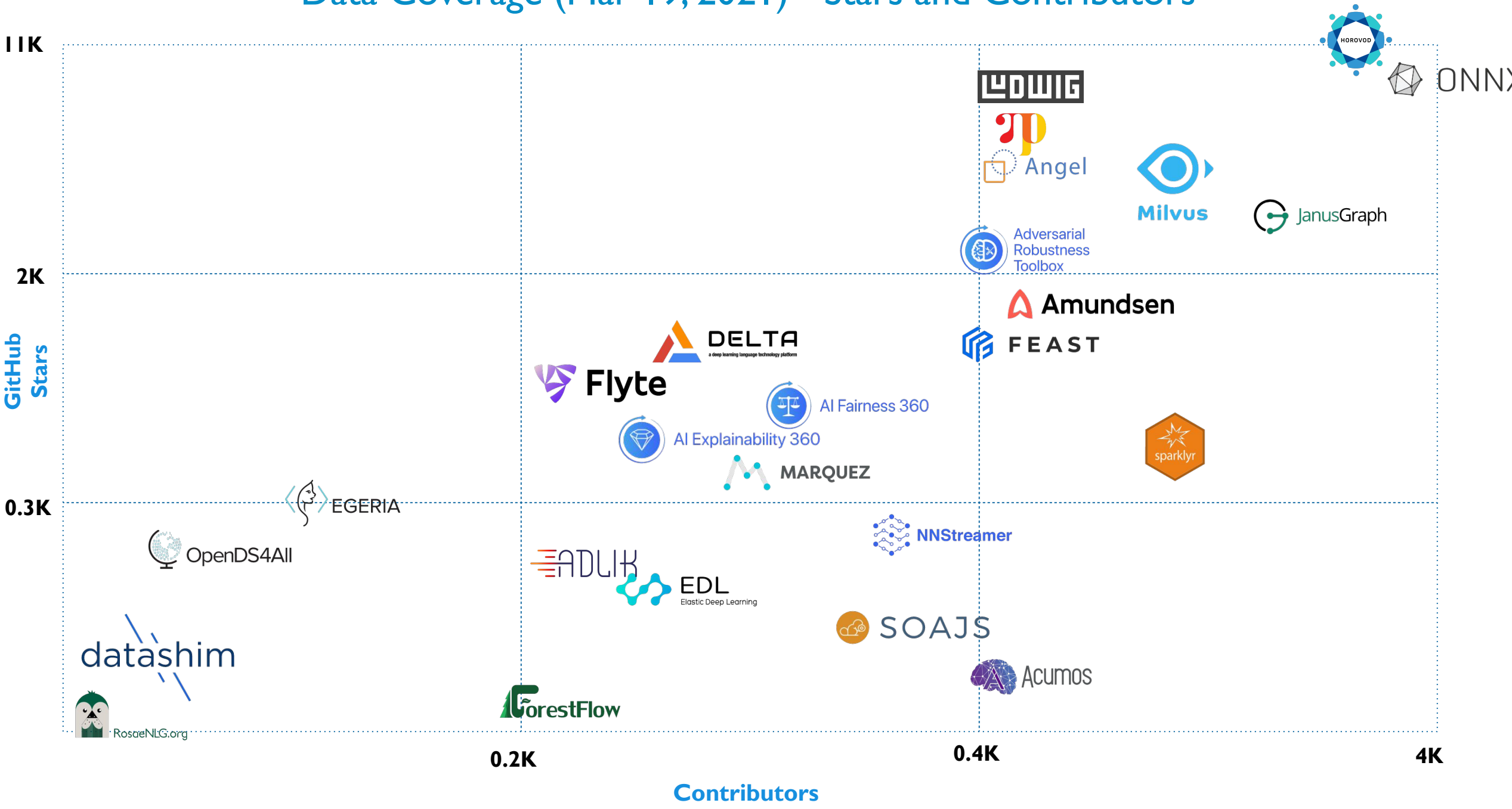
# Active and growing developer community

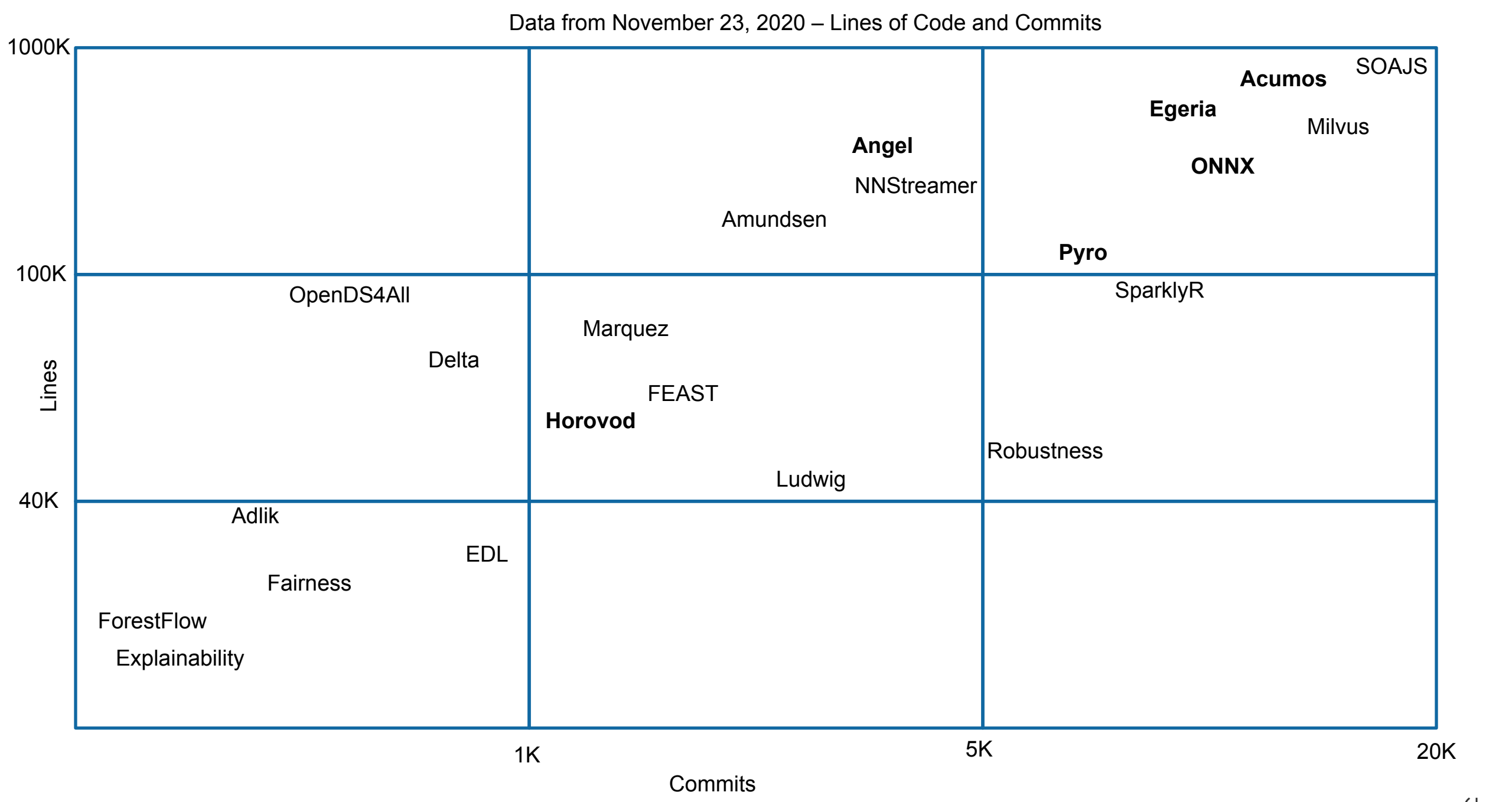
## Cumm. Jan 1- Dec 31, 2020 vs. Jan 1, 2020 to Apr 2, 2021

| | | | | | |
|---|---|---|---|---|---|
| **8.92K** Contributors | **34.65K** PRs/Changesets | **100.03K** Commits | **22.54K** Total issues | **358** Repositories | **2.08K** Slack messages |
| +7.25% | +7.21% | +11.03% | +5.19% | +3.07% | +68.75% |
| **9.61K** Contributors | **37.15K** PRs/Changesets | **111.07K** Commits | **23.71K** Total issues | **369** Repositories | **3.51K** Slack messages |


Data from November 23, 2020 – Stars and Contributors
11K
2K
0.3K
Stars
0.2K
0.4K
3K
Contributors
Horovod
ONNX
Ludwig
Pyro
Angel
Milvus
NNStreamer
Robustness
Amundsen
Delta
FEAST
Fairness
SparklyR
Explainability
Marquez
Egeria
Adlik
OpenDS4All
EDL
SOAJS
ForestFlow
Acumos

# Data Coverage (Mar 19, 2021) - Stars and Contributors




Data from November 23, 2020 – Lines of Code and Commits
1000K
100K
40K
Lines
SOAJS
Acumos
Egeria
Milvus
Angel
ONNX
NNStreamer
Amundsen
Pyro
SparklyR
OpenDS4All
Marquez
Delta
FEAST
Horovod
Robustness
Ludwig
Adlik
EDL
Fairness
ForestFlow
Explainability
1K
5K
20K
Commits

# Data Coverage (Mar 19, 2021) - Line of Code and Commits

# 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 18 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 can not make it.

We need to ensure quorum on the calls especially when we have items to vote on.

# Updates from Outreach Committee

LF AI & DATA

# 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/

- **OSS Global (hybrid) - Seattle, WA, USA - Sept 27-30 - Event Website**
  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

LF AI & DATA

# 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.lfaidata.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

LF AI & DATA

# Upcoming TAC Meetings (Tentative)

- July 1: Canceled Holiday
- July 15: TonY (LinkedIn)
- Aug 5: TBD - Annual project review
- Aug 19: TBD - Annual project review

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

LF AI & DATA

# 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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