



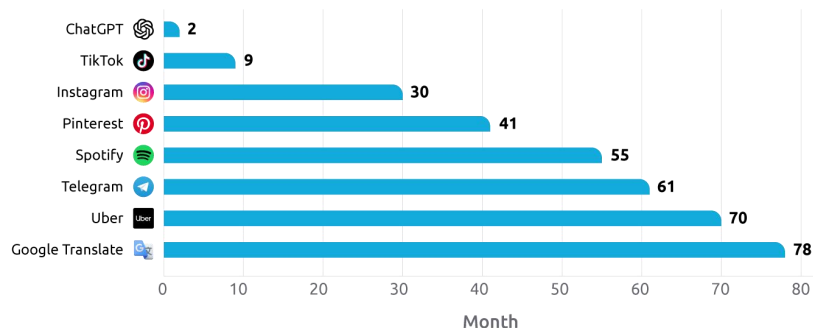
Distri.AI: Decentralized and Scalable Computing Middleware for AI Application

- / Solana-based distributed AI development framework
- / Support distributed tasks of AI application
- / Protection of AI application data and model security

The research enthusiasm for AI applications driven by LLM has exploded

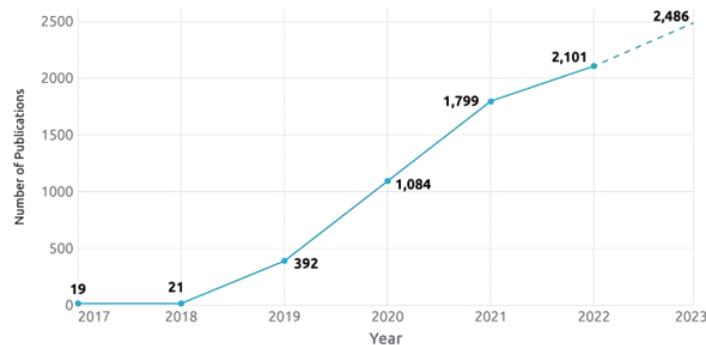
Time to reach 100M users

Months to get to 100 million global monthly active users



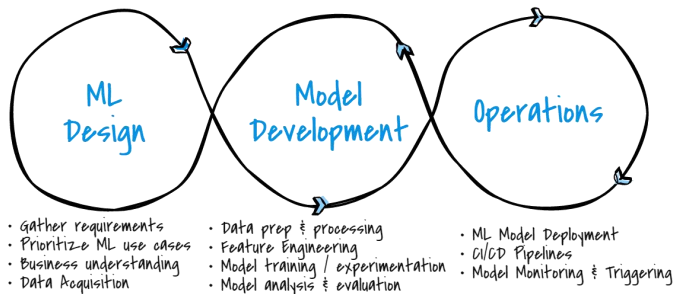
Source: UBS / Yahoo Finance @EconomyApp Economy Insights App

Speed of reaching 100 million users in months

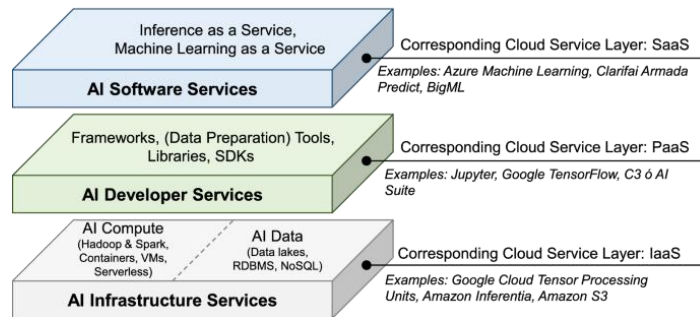


Cumulative number of scientific publications on LLMs

Machine Learning Operations (MLOps)



AIaaS Stack



Problem

The Complexities of AI Development



Currently, the development of AI applications encounters substantial challenges across all stages, encompassing data collection and processing, model training and testing, followed by deployment and maintenance

Top 5 Machine Learning Security Risks

ML01

Input
Manipulation
Attack

ML02

Data Poisoning
Attack

ML03

Model Inversion
Attack

ML04

Membership
Inference Attack

ML05

Model Theft

AI training typically requires the use of costly GPUs, typically accessed through leasing agreements, leading to current inadequacies in privacy protection



Problem

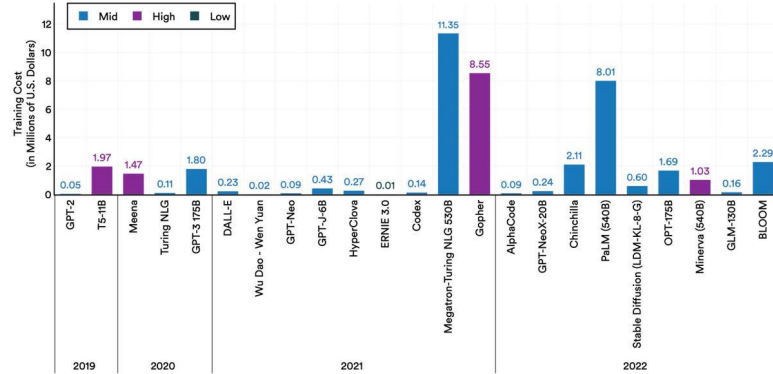
The Threats of Security and Privacy

Microsoft AI accidentally leaked data while training learning models for GitHub

September 20, 2023

Estimated Training Cost of Select Large Language and Multimodal Models

Source: AI Index, 2022 | Chart: 2023 AI Index Report



Project Name	Ticker	Founded	Relevant Product	Valuation (\$M)		Followers (K)		Github Developer Data				
				MC	FDMC	X	TG	Stars	Forks	Watch	Contrib	
General-Purpose GPU & Aggregators												
Akash	AKT	2017	GPU marketplace	525	525	93	10	818	223	44	28	
Aleph.im	ALEPH	2018	GPU marketplace (coming soon)	23	63	34	6	105	75	24	33	
Cloze AI	CLORE	2022	GPU marketplace	33	167	15	4	-	-	-	-	
Cudos	CUDDS	2017	GPU marketplace	88	122	42	6	134	52	41	29	
Fluence	Private	2017	GPU marketplace (coming soon)	-	-	9	1	629	46	31	23	
Flux	FLUX	2017	FluxCore (PoUW) (coming soon)	200	259	152	1	208	276	25	216	
GPU.Net	Private	2022	GPU marketplace	-	-	21	2	-	-	-	-	
io.net	Private	2022*	GPU aggregator & abstraction layer	-	-	241	3	-	-	-	-	
Koii	KOII	2020	GPU marketplace	-	-	21	3	-	-	-	-	
Nosana	NOS	2021	GPU marketplace (coming soon)	60	75	31	5	19	13	6	7	
Render	RNDR	2016	GPU marketplace	1,653	2,345	130	14	-	-	-	-	
*year io.net pivoted				Average	369	508	72	5	319	114	29	56
				Median	88	167	34	4	171	64	28	29
ML-Specific GPUs												
Bacalhau	Private	2022	GPU marketplace	-	-	1	-	549	76	24	54	
Bittensor	TAO	2019	Network of AI models	1,461	1,461	54	5	562	165	27	55	
enqAI	ENQAI	2023	Network of AI models	17	18	4	3	-	-	-	-	
exaBITS	Private	2022	GPU marketplace	-	-	4	0	3	0	2	3	
Gensyn	Private	2020	GPU marketplace	-	-	46	-	-	-	-	-	
Lumino AI	Private	2023	GPU marketplace	-	-	-	-	-	-	-	-	
				Average	739	739	22	2	371	80	18	37
				Median	739	739	4	3	549	76	24	54

Sources: Artemis, Twitter, Telegram, GitHub (as of 1/3/2024)

Note: Purposely excluded GPU capacity/utilization since only a few are live/disclose the data. Also, not all projects use public GitHub repositories.

Problem

The Limitations of Other Projects



In decentralized environments, computing resources from distributed GPU networks extend across diverse regions and devices, posing challenges for large-model applications. And they are primarily limited to basic computing power, lacking comprehensive AI infrastructure services.

That's why we need Distri.AI

— Decentralized and Scalable Computing Middleware for AI Application

01

One-Stop MLOps Deployment

Allowing users to complete tasks such as model inference, training, and evaluation with just a few lines of code

02

Flexible Privacy Preserving Stack

Safeguarding data and models by leveraging Security Sandbox technology as a foundational layer, with ZKP-based technology at its core for privacy protection

03

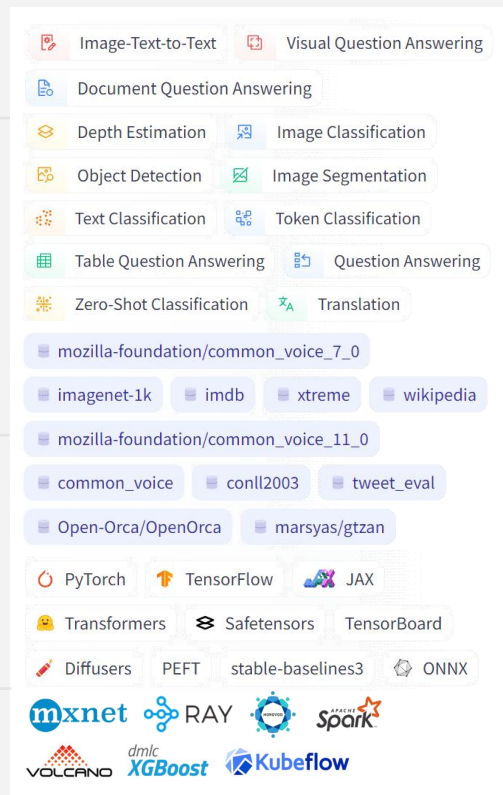
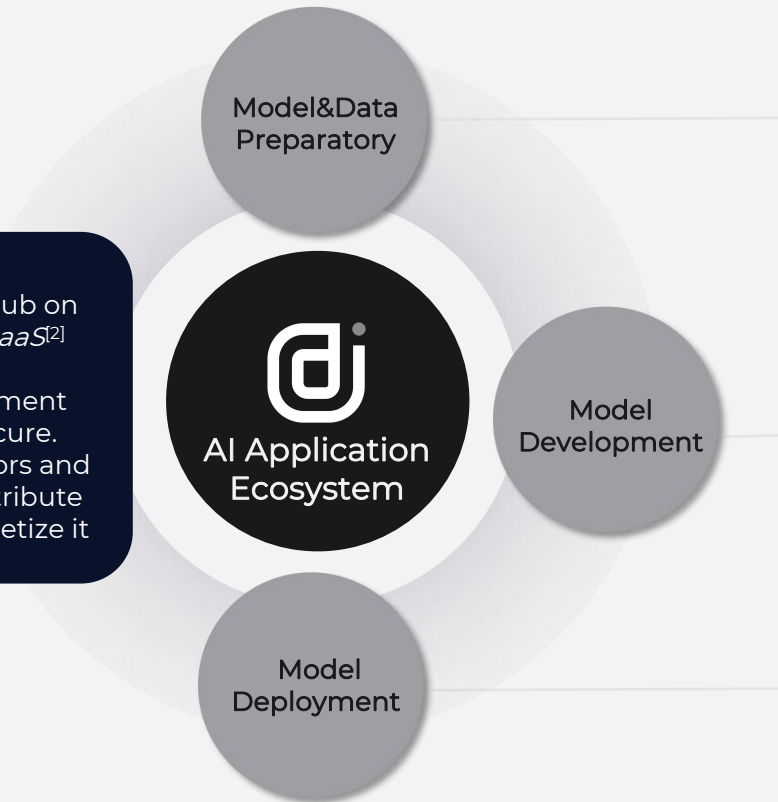
Distributed Collaborative Learning Protocol

Enabling the training of large-scale models across distributed, heterogeneous networks by leveraging model splitting and aggregation, and scheduling algorithms

Overview



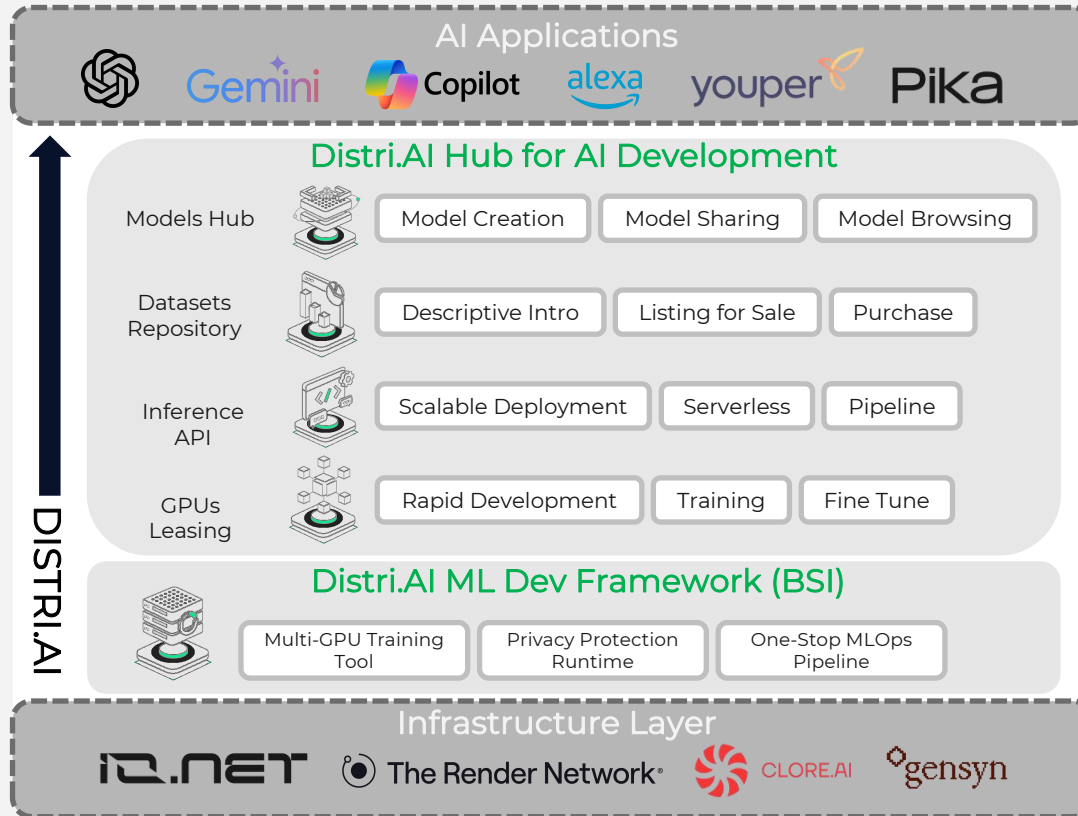
Distri.AI has built an ML Hub on *Solana*^[1], guided by the *MaaS*^[2] principle. Here, model development and deployment become effortless and secure. Additionally, model creators and dataset providers can distribute their work for free or monetize it



[1]: Distri.AI selects Solana for its high TPS and low cost, along with its thriving AI ecosystem.

[2]: Model as a Service (MaaS) allows users to access and utilize ML models via the internet.

Business Ecosystem: Integrated with computing networks, serving AI developers



Distri.AI Hub is an eco-community tailored for machine learning developers, providing model development services and fostering collaboration and technical discourse among developers

Distri.AI ML Dev Framework (BSI) is an all-in-one MLOps development framework

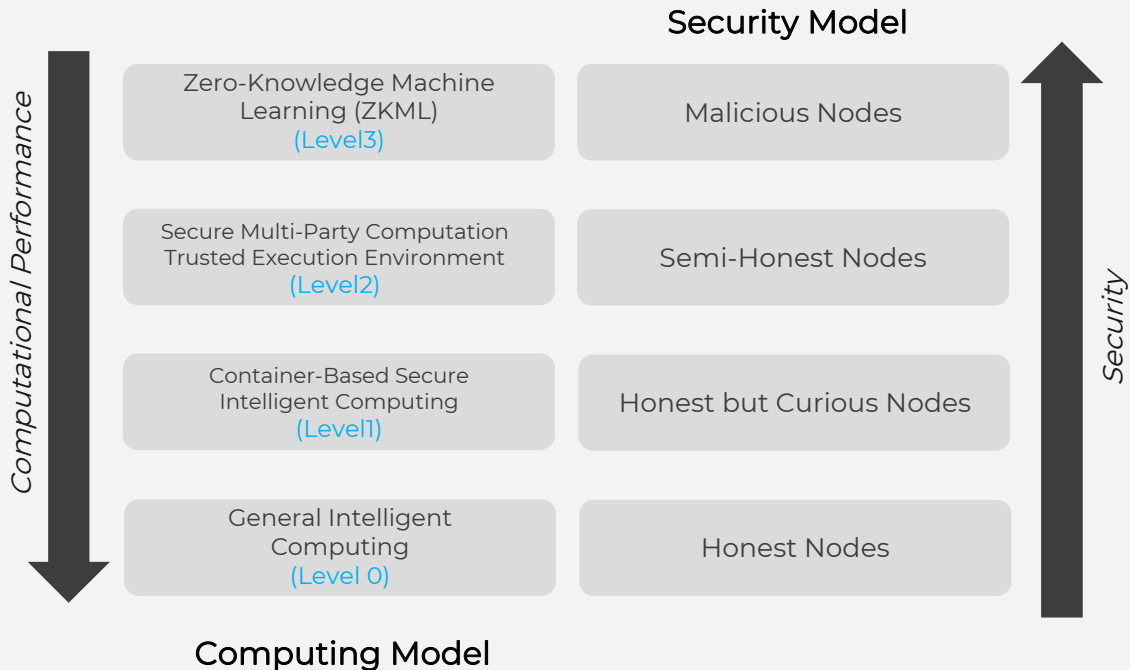
Security Model

Level 0: Not supporting data/model privacy and security protection, but featuring optimal performance

Level 1: Possessing some level of data and model protection capability, but not guaranteeing full privacy and security for data and models

Level 2: Featuring strong data and model security and privacy protection capabilities, but lacking GPU computing power support

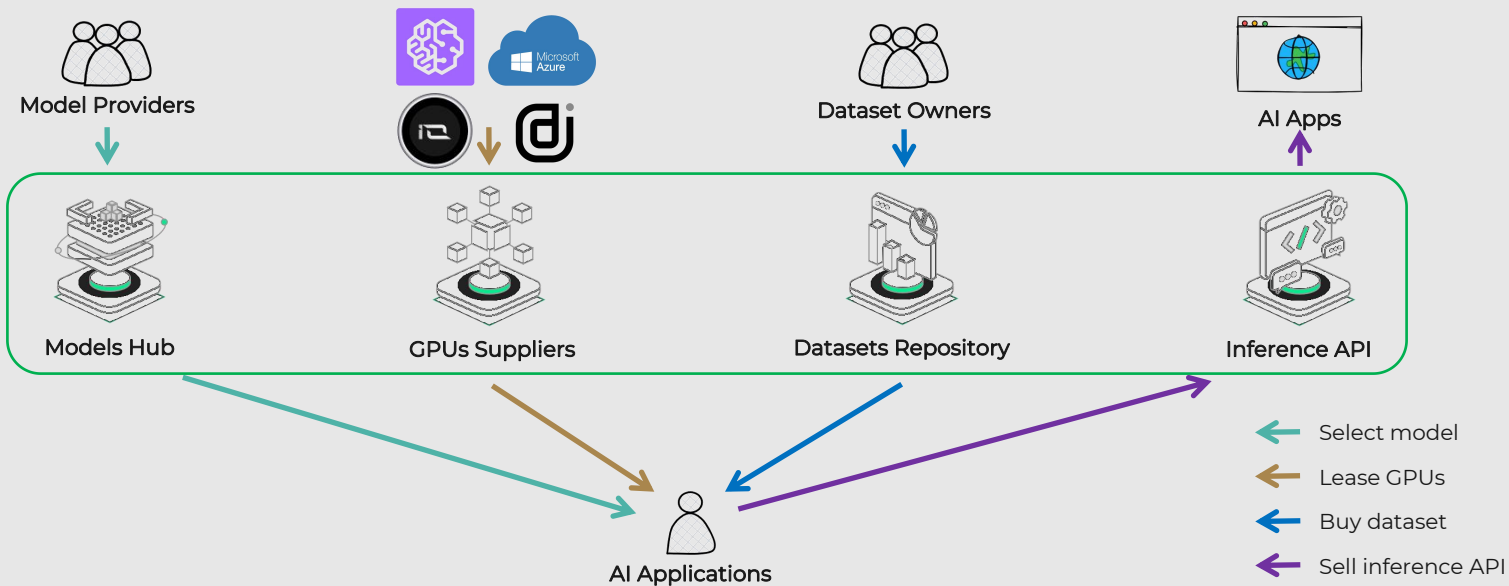
Level 3: Ensuring strong data/model security and privacy with efficiency constraints, suitable for a restricted range of application scenarios



Users can select resources with different security levels based on their specific needs for AI training or deployment

Business Model

ML Eco-Community: Distri.AI Hub



Team Members



James Wen
Co-Founder



- 15+ years in tech startup, 6 years in AI & Crypto
- 3 x Co-founder of Acquired Tech Company
- B.E. in computer science, University of Electronic Science and Technology of China



Terenec
Co-Founder



BINANCE



HSBC

- 15+ years experience in investment & operation management
- Served as the regional president of Binance
- M.E. in computer science, Johns Hopkins University



Oliver Wu
Adviser



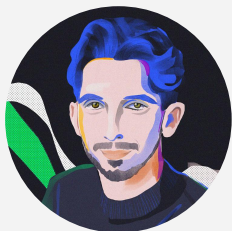
- Chair Professor of City University of Hong Kong
- Ph.D. in Electrical & Computer Engineering, Carnegie Mellon University
- Top 2% Most Highly Cited Scientists by Stanford University



Alice Chen
Tech Lead



- 3 years Meta(Facebook) software engineer
- 4-year AI & crypto founder
- Quadratic Acceleration Quantum overseas partner
- B.E. in computer science, Nanyang Technical University



Dr. Ray
Technical Scientist

- Ph.D. in Information Security, Cryptography and Privacy Computing
- Solid understanding of modern cryptography



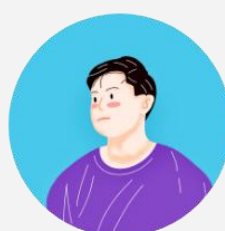
Dr. Jerry
Technical Scientist

- Ph.D. in machine learning, blockchain
- Worked for a leading blockchain company, leading the research and development of Web3



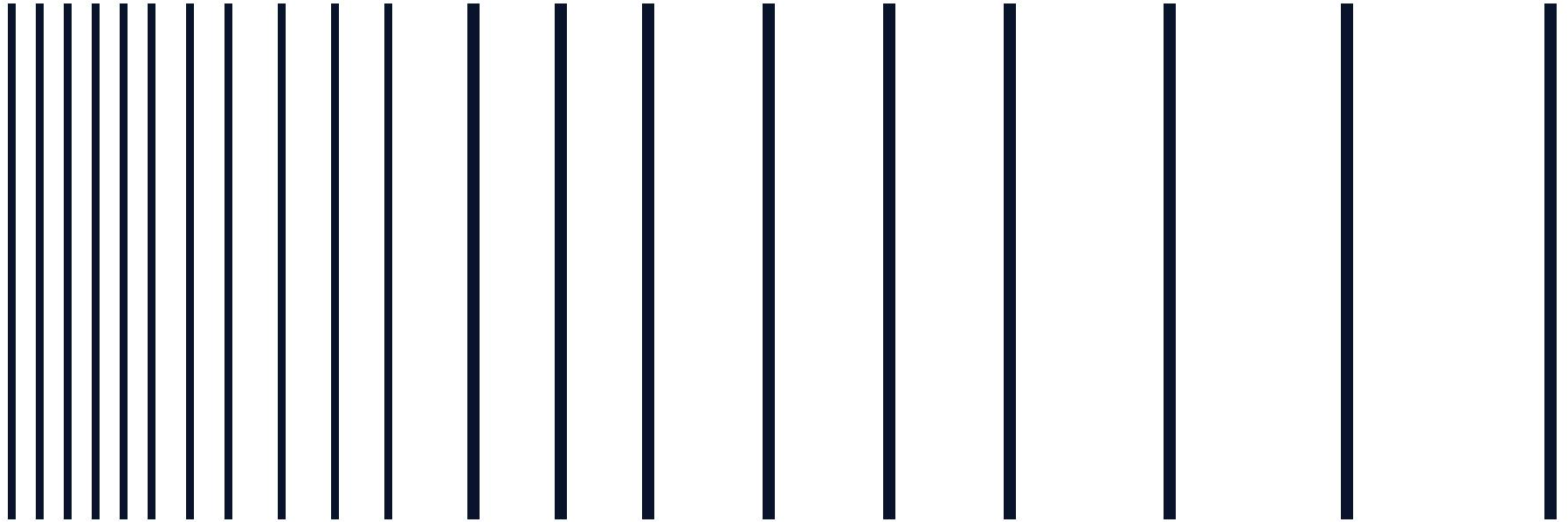
Jooy
Full-stack Developer

- Has extensive technical development experience in cloud computing
- Core developer in the OpenStack and reviewer for the Rally



Shaka
Protocol Developer

- Has extensive experience in distributed systems
- 4 years of protocol development experience in Polkadot and Ethereum



Homepage: <https://distri.ai>

GitHub: <https://github.com/distri-group>

X: [@DistriAI_web3](#)

Discord: <https://discord.gg/CgQZGcSb9V>

<https://medium.com/@Distri.AI>



Resources