

Developer Enablement Manager at Aleo



Dylan Christopher Kawalec

[[Developer Relations](#), Founder of the [Bridge Builders DAO](#), [ZK Event's Coordinator](#), Classically Trained [Actor](#)]

Response Outline

1. **Problem Statement** ; prompt.
2. **Network Resistance** ; Here I present the main problems that are pertinent to each ZK network where in which a Developer Enablement Manager is tasked to help resolve.
3. **Developer Enablement Management Framework** ; These are the three performance evaluation metrics that could be used to assess the performance and reliability of a DEM, with examples.
4. **Dylan Kawalec DEM Strategy** ; In response to Section 2 'Network Resistance', I list the ways in which I would fulfill the responsibilities of a DEM captain in accordance to the job description I received from Anthony.
5. **Final Note** ; Why is Aleo important to me.
6. **Design Board**

1 Problem statement

In today's competitive environment, Aleo is actively trying to solve *how they will attract and retain new contributors to participate in the on-going development for their network.*

2 Network Resistance

A) Please refer to section [4 - A] : Network protocols implementing Zero-Knowledge Proofs such as Aztec and Starkware and Aleo have one major thing in common, a Domain Specific Language [[Cairo](#), [Noir](#), and [Leo-lang](#)]. Other protocols [[Polygon Hermez](#), [zkSync](#), [Findora](#), [Secret labs](#), [Manta](#), [Mina](#), [Anoma](#), [Oasis](#), [Horizon](#) and [Espresso networks](#)] are all battling for the same attention we are after. In contrast to our competitors, we must accredit ourselves as the most valuable network to work in if programmers want to develop Zero-Knowledge Proofs. Our mission is to make Leo the most notable tool to use before projects begin building privacy solutions with high integrity and security in mind.

B) Please refer to section [4 - B] : The regulatory guidelines that the crypto industry has at its disposal to cross reference is fairly minimal. Protocols who've built the

infrastructure for decentralized financial applications have faced somewhat unfair restrictions in recent times [[Tornado Cash Sanction](#)]. Due to the regulatory uncertainty we as an industry face, it's our responsibility to be as specific and transparent as possible with the materials we release to the public. Education plays a major role in the way we communicate and strengthen the ecosystem as a whole.

C) Please refer to section [4 - C] :Our industry is suseptible to harm because of the lack of security we have when going to events.In the past I had invited people to party's that developers refused to attend simply because there was a security guard on premise. In order to engage with greater audiences, we have to be mindful of some of the world's real expectations to adopt more users and workers. However, when remote team's scale too quickly in size, they can face human-relation consequences such as a reduction in 'worker appreciation'

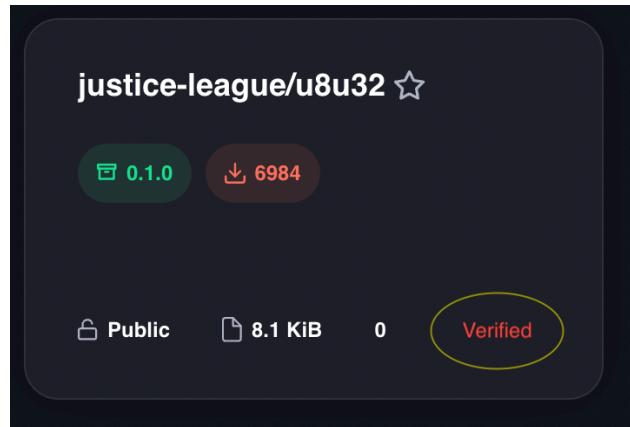
3 Developer Enablement Management Framework

Which metrics can be used to measure a Development Enablement Manager's performance?

The measurement of success for Aleo's *Developer Enablement Manager (DEM)* can be measured using the following metrics :

I. **Package Management** : The addition of more high quality contributions to Aleo's [PM Dashboard](#).

- The **DEM** will establish a PM-template to help our engineers review new or existing packages. After review, we should add a *verifier* badge on [Aleo.pm](#) published package's that denote whether or not it is safe for the public to use. Each verified package can implement a PM-Description regardless of its popularity counter.



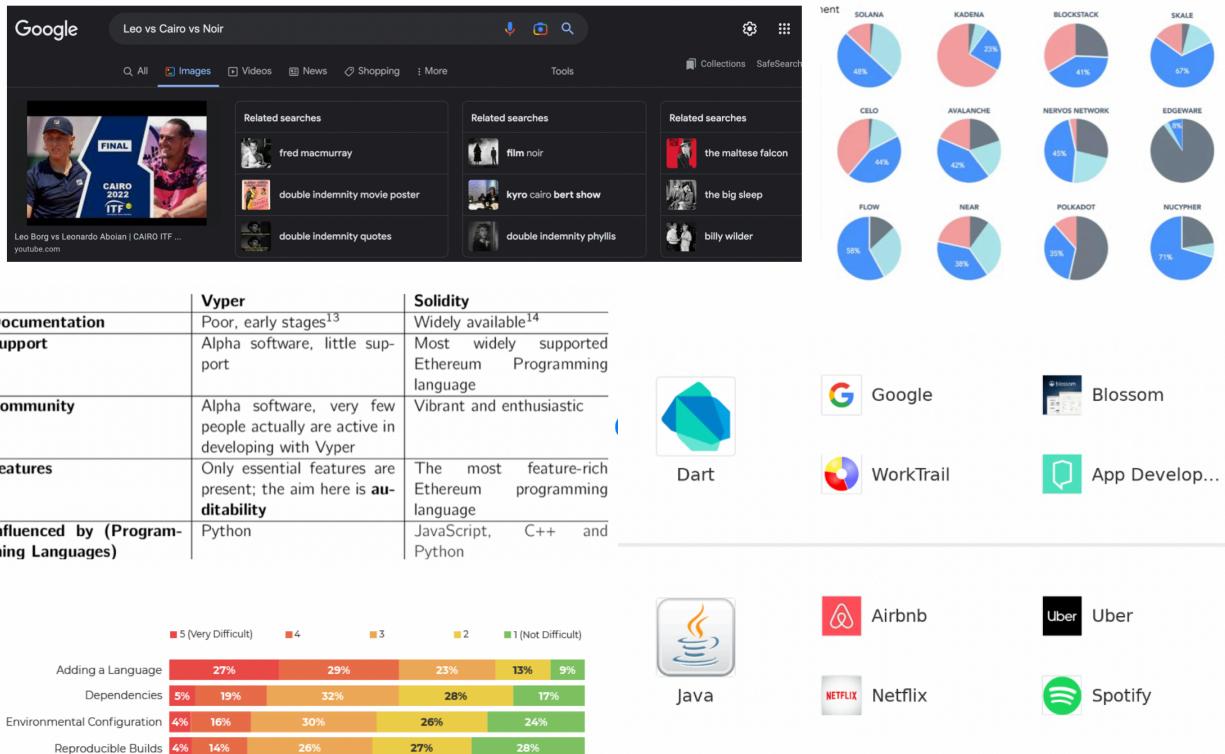
II. **Improved Developer Experience** : In order to assure high quality of engagement within our ecosystem, the **DEM** will track all Testnet to Mainnet project transitions.

- A *comprehensive strategic analysis* will be delivered from the developer feedback forum offered to teams building with Leo-lang. Upon receiving feedback before and after Leo-lang workshop demonstrations, the **DEM** will need to provide a Leo-lang improvement proposal (**LLIP**) which will be used to formally update existing Aleo/Leo-lang technical documentation.

EXAMPLE : [Improvement Proposal Link](#) (This is the Findora Improvement proposal template we wrote back when I began working with Discreet Labs)

III. Outreach : A **DEM** is responsible to help create more informative technical marketing materials.

- The objective here is to establish a positive reputation for the Aleo network in the ZK space. Materials such as Leo-lang technical diagrams, cheat-sheets, comparison charts and other valuable syntheses for the Leo programming language will be invaluable for developers who may feel too skeptical to learn an entirely new language.



4 Dylan Kawalec DEM Strategy

How will I empower developers in our ecosystem to reduce network resistance and enable the adoption of our technology? What sort of process do you have to ensure our developer relations team can be attentive to contributors?

A) Reputation | Support | Formal Grant Experience | Community Updates

1. Scrolling through discord is going to be problematic; it's extremely important that we **formulate an FAQ** that contributors can go to for answers on Google that might often be repetitive. Most programmers need an answer immediately and often times our core team of engineers may not always be readily available to answer questions about the intricacies of Leo-Lang. This should be considered a priority and I will make sure to organize the information in a comprehensive manner.

Outcome #1 :

Translating the FAQ into Q&A statements on **Stack**

Overflow will allow us to reach a reputation score of 20,000+. This will officially verify Leo-Lang on stack overflow resulting in greater SEO.



Outcome #2 :

The master plan is to deliver an extensive **online Leo-Lang course** outline for our education team leader to promote. We will be able to answer a majority of these questions across multiple platforms [Coursera, HackerRank, FreeCodeCamp, Codecademy, Programmer Hub, Udemy, GeeksforGeeks].



freeCodeCamp (↗)



codecademy



How will you onboard as many developers as possible to our *Leo* programming language?

2. Implementing methods to **standardize our Leo workstation** will help our hackers during hackathons to better collaborate and engage with one another. In the long term, our goal is to provide Leo developers the infrastructure to retain strong working relationships with the intention of building high quality products as we scale.

Examples of ways we can attract attention

Why Become a Leo Programmer?

“12 signs you’re a Leo” welcome package.

Setting up your Aleo Workstation Walkthrough [Mac, Windows and Linux]
Individual paper hand guides.

Leo Code Formatting Workshop

Best practices when writing code; Do’s and Don’ts.

Leo DAO | “A Contributor’s Guide to the Galaxy”

Dylan Kawalec, [Founder of the Bridge Builders DAO](#) : I will establish a similar proposal for contributors know how to actively participate in our network (i.e. *Proof-of-participation*).

3. **Implementing Solutions that will provide real-time support and guidance for developers building on the Aleo network through our grants program.**

- In the summer of 2020, I implemented a program called “[Alexandria](#)” that influenced Harmony’s decision to create the ZK University “**Learn-to-Earn**” program. Programmers were incentivized to participate in real time lectures to build zkSNARKS with their peer’s. I believe Aleo can start a similar program that pays contributors to build ZKP’s using Leo-Lang on our testnet. This would be a great way to gain haptic feedback from our community and make improvements to the existing technical documentation.

In addition to incentivizing our developers through educational programs, we will offer and/ or expand our Grant Program.

- Utilizing a public calendar is paramount to the **Grant team’s** efficiency.

- It's important we have a system that utilizes a **grant syllabus** to aid in the filtration of underwhelming proposals submitted by the public. This will allow us to prioritize key strategic partnerships over lost time.
 - The development of our **internal process** will improve how we assist our Growth & Engineering teams, ideally bringing a streamline means of tracking a grantee's progress after receiving funding. Hypothetically, this process will be determined in agreeance by all participating teams and must not deviate from the initial agreement made. Any and all exceptions must be outlined by an elected *Lead Representative of the Grant's team*. This person will make any and all final decisions [e.g. approving grants, IRL meetings with grantees, cancelation of grant proposals].
 - Creating a **grantee evaluation template** will allow us to track unspent milestones after the Grant's team approves a grant. **I have seen projects walk away to other ecosystems with over \$50,000-\$200,000 simply because the Grant's team did not Track & Trace their finances.** This template will be used to evaluate the progress of a grantee before and after receiving a grant. As much as we would like to support our community and their projects, we must be mindful to not overspend in the beginning of a venture. It's extremely important to be as conservative as possible with our grant budget in case there is a need for emergency spending.
 - If we don't already have one, a publicly viewable **grant proposal guideline** should be made available to our community to fill in for themselves. This will act as a template with cut-throat requirements made clear for the reader before submitting a grant proposal. If a proposal is unfinished and does not meet the requirements we're expect according to our **grant syllabus**, it will be ignored. I'd be happy to write/revise our grant's initiative if need be.
4. In addition to current practices supporting the Aleo **newsletter**, I intend to contribute a **digestible engineering update** for our subscribers to enjoy. It is just as important to cover the development of our products, as it is to highlight the advancement of our ecosystem.

B) Establishing Presence | Leo DAO | Hardcopy | Technical Documentation Improvements | Onboarding

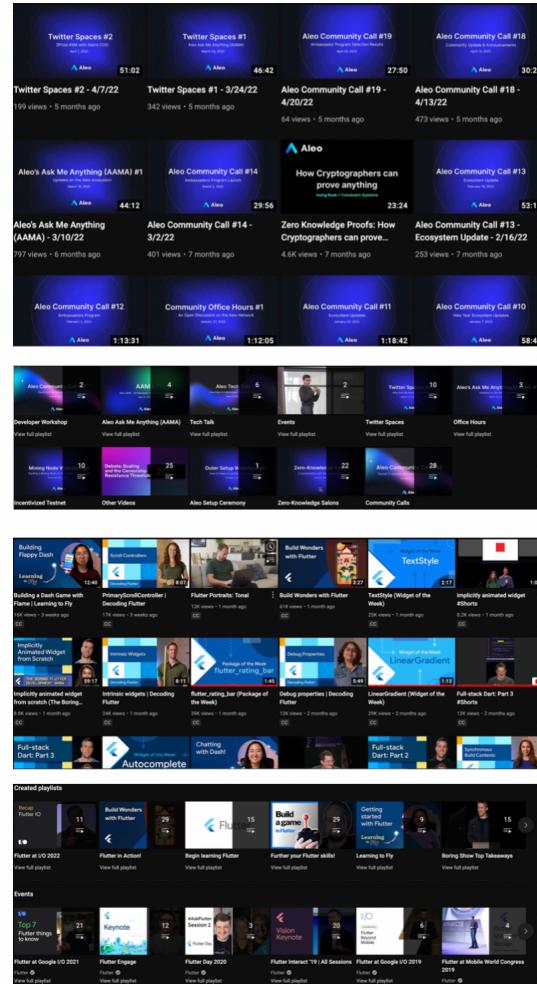
1. The way Aleo can distinguish itself as a trustworthy provider of privacy tech is by showcasing ZK content in a highly professional manner.

What improvements would I make to our YouTube Channel?

Aleo YT Pro's & Con's

Pros	Cons
Consistency : We have been delivering a lot of content on time which means we are active.	Purpose : Most of the content at first glance does not give me a clue about what the content is about.
Quality: We are doing our best to deliver a lot of value to our community. The amount of time we spend in each video is packed with information that I feel is insightful and hard to find anywhere else.	Relevance : I don't think there is a single video on our YouTube channel that's shorter than 25 minutes. Most incomers won't know where to start and won't spend more than 5-8 minutes watching the video.
Universal : We are clearly doing a lot; we have workshops, AMA's, and a commercial or two.	No-Takeaways : At first glance, I don't know what any of the AMA's are about from their thumbnail.
Stylized : We have playlists relevant to the content and cool designs that gives us a sense of credibility.	Link Fix : The banner tells me nothing about the project, the header links don't take me to the Aleo blog to learn more.
Strong sense of community : An authentic 1k+ Sub-count with plenty of videos that show the team publicly speaking is good to see.	Discord vs YT: We have over 30,000 members in our discord. There should be a #chat that provides feedback for each video we release.

Google/Flutter Comparison



— Aleo YouTube solutions —

- Change the thumbnails with a keyword that describes the video's main subject.
- Place time stamps inside our most watched videos.
- Create an entirely separate channel for Leo-Lang and start the workshop and education series over again. First, make the Aleo Channel the parent channel to the new Leo-lang Organization channel. The purpose of the Aleo Youtube channel should be meant for the community contributors, Aleo panels, commercials and any other Aleo related content; make the Leo-lang Organization channel stand out!
- I will create clear and concise videos for people to easily digest and feel confident to learn Leo on their own.

Examples : [\[Harmony Explorer Dashboard Walkthrough, FairySwap Bridge Tutorial\]](#)

2. **Universal Communication** : As previously mentioned in section [4 - A, Outcome #2], I will help create a clear dialog about Leo-lang for our community to foster.

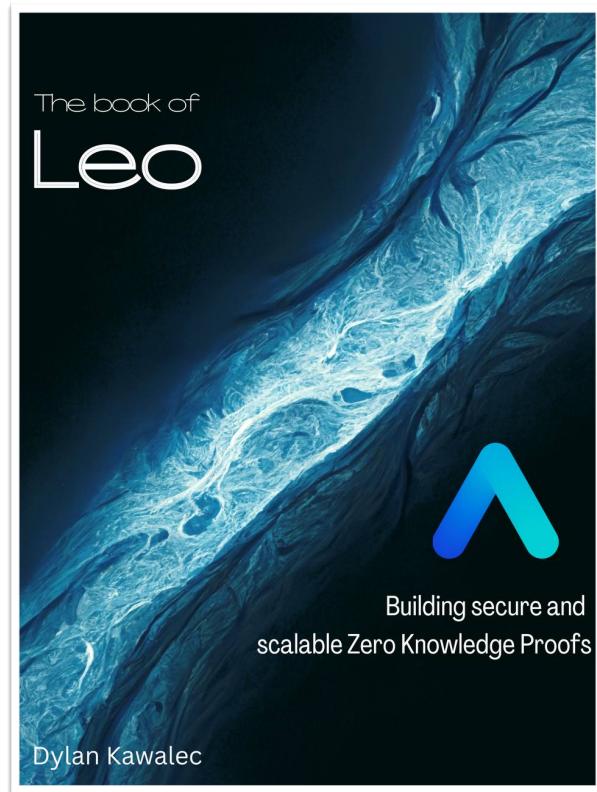
What specific initiatives can be designed to educate our community about ZK and Aleo more broadly?

Leo is brand new, is it safe to use? Can Leo be trusted to build real-world applications? Why was Leo named Leo? What makes Leo different from other DSL's?

Workshops

- History of Zero Knowledge Proofs; the Leo-Timeline.
- What is Leo-lang doing? ; Pseudonymity vs Secrecy vs Mixing
- Leo-lang use of Cryptography Guide ; “proof of circuitry”
- Leo whitepaper synthesis ([Link](#))
- +50 use cases of ZK ([Completed](#))

3. **Live Developer Workshops** : At the moment of writing, our YouTube channel has two Leo workshop videos. The best way we can accredit the institutional reputation of Leo in the ZK space is by developing programming guides to help people go from **beginner-intermediate-advanced!**



How will I make the process of building with Leo seamless?

- Interactive Video walkthroughs of existing scaffold projects
- Leo-Lang programming AMAs & Developer Talk sessions
Talking about code is important to do especially to see what is wrong with certain statements that can be fixed together as a group. I propose we schedule half-hour weekly Dev Talk sessions that will be organized/recorded by the **DEM** and/or by our engineers.

- The AleoHQ coding manual ; *The Book of Leo : Building Secure and Scalable ZKP*
I am very excited to release an interactive programming guide for Leo-lang! I'd like to make it available in a hardcopy format for events we attend during our 2023-2027 hackathons.
 - *How to make a Package in Leo & “Package of the month” showcase*
 - *Full Stack Leo dApp Scaffold & Tutorials*
Taking our existing workshops and adding Front-end interfaces.
 - Additional Workshops for AleoHQ
Dungeon and Dragon ZK Story board | ZKCoup the game | ZK Mafia.
4. Earlier this quarter, I devised a **competitive analysis** of Aleo for Discreet Labs to enhance Findora's technical documentation. As the **DEM**, I will make sure our technical documentation is up to date, easy to read and creates a **developer red carpet experience**.

What Improvements would I make to our developer documentation?

- Leo-Lang's whitepaper has missing links and needs to be updated.
- Leo-lang's installation guide has some missing steps while running commands in the terminal. The installation process is different depending on the operating system the user is running and could cause confusion if it is not updated.
 - This week I created a guide to help Mac users set up their workstation
[<https://stackoverflow.com/questions/73848406/how-to-properly-install-aleo-leo-onto-macos-with-commands>]
- I will Summarize and Simplify the existing documentation.
 - A synthesis / technical understanding in the order in which it was presented online.
[<https://854655481-files.gitbook.io/~files/v0/b/gitbook-x-prod.appspot.com/o/spaces%2FsRgJ1frKIPgHuUx5NCAS%2Fuploads%2FakdKp5ee9YpSsKcyb8c9%2FAleo%20Synthesis%20v.3.pdf?alt=media&token=203fd4f0-3296-4cdd-bfd9-9f10fe414e25>]

C) Security | Engagement | Events | Worker Appreciation

1. Internal remote communication security guidelines

- Social Engineering training for the Aleo network

2. Community/Contributor Dashboard : Where we can share regular updates to our community and keep them engaged?

- Discord is notorious for being the hub of unsolicited spam and fake user accounts attempting to steal information through phishing attacks. One way we can help our users avoid this problem, is to create an **Aleo community/contributor portal** as an extension to our [website](#). I'm a fan of the idea that a crypto website behaves as its own workstation with user friendly Web3 tools. It would be an excellent challenge for the **DEM** team to develop tools that enhanced our website's capabilities with the power of Zero-Knowledge Proofs!

Ideas:

I. Instead of sharing keys or sharing files through discord or email, what if we created a ZKey ceremony exchange using Leo to help people share keys with one other.

II. If a user connected their wallet to the website, then they can spend a small fee to send a private message to another registered user's public account, sharing secret messages with each other over Aleo mainnet.

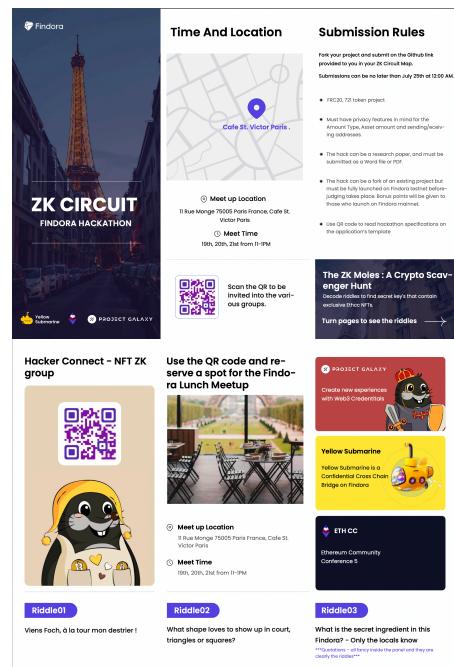
III. Aleo Community/contributor portal may also act as a dashboard that combines both our [Aleo Blog](#) and the channels in our [discord](#) into one.

3. Developer relations for incoming and outgoing contributors

— Onboarding Template and the Offboarding managerial procedure.

— Coordinating events like hackathons in different cities [[Example of my previous hackathon coordination work](#)].

I started an IRL hacker challenge for ZK enthusiasts called ZK Mole. Hackers have to crack riddles to find the secret whereabouts of the Mole to reveal their NFT; it's a play on how the **Anonymous Foundation** headhunts for hackers to get job referrals for solving difficult challenges online.



4. Team-recognition and Network Appreciation

- Monthly ‘Validator Spotlights’ inside our newsletter to recognize the efforts made by our network’s node operators.

5 Final Note

In the last week while working on a competitive analysis, technical documentation synthesis for both the Aleo website & the Leo Whitepaper, I designed a board (**see below - Section 6**) to help prepare me for this assignment. I was lucky enough to share my preparation materials with the team at Berkeley University before I submitted them today.

I’m grateful for the opportunity to have met Howard, Ray and Collin this week thanks to Jonny Cadden’s suggestion. It was fortunate to have the ability to meet the team in person the same afternoon before the conference had begun. What I appreciated the most about them was not only how brilliant they were, but also how honest and kind their feedback was towards my work.

I look forward to meeting with the team again to discuss the **DEM** opportunity in depth to see how we can take Aleo/Leo to the moon! I had a lot of fun working on this assignment and I’m pumped to start working for Aleo and to help bootstrap our developer network.

Over the last 6 months, I have developed a newfound respect for Aleo after working with Weikeng Chen, the Chief Scientist of Discreet Labs, who spoke highly of this project; his love for ZK was so impactful I honed in all of my focus on Aleo. Ever since I started working with the Harmony ZK University and Discreet Labs teams, I’ve grown obsessed with the ideologies the ZK space shares with one another to make a more secure and private crypto future.

I truly believe that this is the best path forward for me in my career and I cannot wait to tell an awesome story about how we revolutionized the world due to our efforts.

I look forward to meeting with you soon. Wishing you all the best of luck during your trip in BoGota ❤️

Cheers,
Dylan Kawalec
dylankawalec@gmail.com | (928) 499 0093 | 1944 Placer St. Richmond, CA

“Provide anything else you think would be important to include”

1. Leo White Paper Synthesis Rough Draft

[https://drive.google.com/file/d/12FaFuhNA_k7eB0fl0eVwMfpoiVyLhBl9/view?usp=sharing]
(WIP)

2. Design Board (*next page*)

6 Design Board

Ecosystem Growth ++



Dylan Kawalec

Aleo Developer Enablement

Engaging with the
broader developer community.

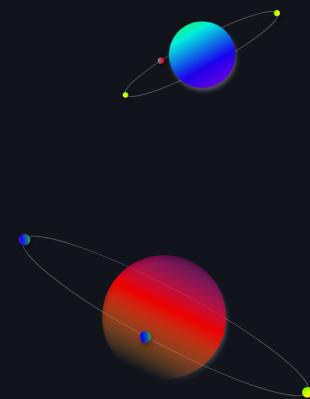
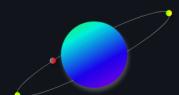
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Contributor
Growth

Adopting
Leo

Developer
Relations

Organize the
Disorganized



Making Leo the #1 Programming
Language for writing Zero Knowledge Proofs

20,000
Stack Overflow
Reputation

Developer
Red Carpet
Experience

Leo
Hardcopy
Publications

Weekly AMA's

Validator Spotlight

Community Forum



coursera

HackerRank



More education,
More contributors.

freeCodeCamp(🔥)



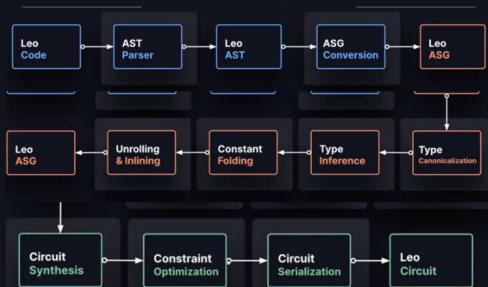
codecademy



Workshops



- Leo white paper synthesis
- The AleoHQ coding manual
- Cryptography Guide, "proof of circuitry"
- +50 use cases for auditable PriFi solutions
- "12 signs of Leo", Why code in Leo?
- Leo DAO | "Contributors guide to the Galaxy"
- LEO packages & how to use them sessions
- Testnet & Mainnet Validator Guide
- Programming AMAs with Dev Community
- History of Zero Knowledge Proofs Series
- Full Stack Leo dApp Scaffold & Tutorials
- Pseudonymity vs Secrecy vs Mixing WS
- Video walkthrough of existing scaffold projects.



Viewing Key = (Base58 string = `AViewKey1`) decrypt account records, which are encrypted under the user's account address. Derived from the **Private Key**, it can decrypt records from the global ledger.

- Secret Key : Account encryption scheme

Private Key = ("Base58 string" - Encoded with a `APrivateKey1`) which essentially labels it as a "PK". This will authorize a transaction, which updates the global state of account records. This is randomly constructed from an **account seed**.

Account Address = ("Bech32 string", comprised of 63 characters - `Aleo1`) enables users to interact with one another, sending and receiving records that encode values and application data.

- **Public Key** : account encryption scheme

(View key decrypts the account, the account key allows interactions and encrypts values that are sent when the private key verifies the Tx, and then updates the state of the account. The Private key is constructed from the account seed which generated the Secret key, pseudo key, and commit randoms scheme.)

Proving Key = ("Base58 string" == `AProvingKey1`) similar to an auditable private key that 3rd parties can use on behalf of the owner. It cannot spend on behalf of the prover, but it can access and view data.

- Consists of
 - Public key : account signature scheme
 - Pseudorandom function seed : from account private key
 - Commitment randomness : From account private key

Synthesize
Simplify
Share

EDUCATION
IS
KEY

