

# Executive Summary

The DeFi Africa Web3 BUIDL Workshops project, funded through the generous support of the [Arbitrum grant program on Questbook](#), embarked on an ambitious journey to elevate the understanding, engagement, and innovation within the realms of Web3 technologies across Ghana, west Africa. Targeting a diverse audience of IT students, developers, and entrepreneurs, the project sought to lay a foundational stone for Africa's burgeoning web3 space. Through a series of meticulously designed BUIDL workshops delivered across three prestigious universities, the initiative aimed not only to educate but also to inspire and onboard the next generation of African DeFi innovators into the Arbitrum ecosystem.

## Key Achievements at a Glance:

- Extensive Reach:

Held about 90-hour workshops at University of Ghana, Ho Technical University, and Kumasi Technical University, engaging about 150 participants, surpassing goals.

- Community Growth:

Achieved a 60% increase in DeFi Africa's developer community, adding over 250 passionate developers, enhancing our collaborative ecosystem.

- Arbitrum Experience:

Guided about 100 smart contract deployments on Arbitrum's sepolia testnet, offering hands-on development experience and insight into Arbitrum's ecosystem.

- Foundational Training:

Introduced Web3 technology to over 150 student developers, providing essential skills for future Web3 innovation and project development.

- POAPs:

Distributed a 150 proof of attendance protocol NFTs (POAPs) to participants of the workshops, 60% of these poaps are minted already, 30% reserved and the rest are either yet to be minted or expire, this is probably a result of participants new to blockchain based-poaps and the limited time we got to explain this into details to them.

- Strategic Partnerships:

Bolstered project success through alliances with the leadership of the Computer Science Students Association (COMPSSA) of each University and key Web3 communities like Blockchain Builders Club, Afroblocks, Public Good Africa, and Sovereign Frontier, enriching participant support.

- NexFi HackerBoost Initiative:

Established groundwork for continuous learning and project support via the NexFi HackerBoost, addressing early Web3 familiarity challenges.

This project not only achieved its set goals but also sparked a movement towards a more inclusive, innovative, and decentralized financial future in Africa. By empowering participants with the knowledge and tools to navigate and contribute to the Web3 space, the workshops have laid the groundwork for sustainable growth and innovation in the African DeFi landscape.

## Acknowledgment

We extend our heartfelt thanks to the [@seedlatam](#) team, especially [@axlvaz\\_SEEDLATAM.eth](#), [@cattin](#), and [@Manugotsuka](#), for their invaluable support throughout this project. We're deeply grateful for their partnership and look forward to continuing our journey together towards advancing Web3 education and empowerment.

## Who Are We?

[DeFi Africa](#) stands at the forefront of the burgeoning decentralized finance movement on the African continent. Founded with the ambitious mission to democratize access to finance through blockchain technology, DeFi Africa has rapidly evolved from a visionary concept into a pivotal player in the African financial technology landscape. Our organization is dedicated to leveraging the transformative power of DeFi and Web3 technologies to foster financial inclusivity, economic empowerment, and technological innovation across Africa. [Some events we have organized so far!](#)

## Our Mission

Our mission is to drive DeFi adoption in Africa by removing financial barriers, offering education and support to empower individuals and communities to thrive in the DeFi space.

## Our Vision

A future where the digital economy thrives, driven by the innovation and creativity of people who are empowered to build and utilize decentralized applications that address the unique challenges and opportunities of the world.

## Rationale Behind the Web3 BUIDL Workshops Project

The project addressed the urgent need for Web3 and practical Arbitrum L2 network training, essential for Africa's technological growth. Sponsored by Arbitrum, it aimed to fill the educational gap with hands-on workshops, preparing a new wave of African developers and entrepreneurs for the digital economy.

This initiative did not only aimed to enhance technical skills but also to foster innovation, problem-solving and inspiration in the African web3 space, contributing to broader technological empowerment.

## Project Objectives

Below, we outline the specific goals the workshops aimed to achieve:

- Educational Goals:
  - To enhance participants' technical skills in decentralized applications development and deployment, enabling them to contribute to the development of innovative DeFi solutions.
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- Community Building:
  - To foster a vibrant and supportive community of Web3 developers, entrepreneurs, and enthusiasts within Africa, encouraging collaboration, knowledge sharing, and mutual support.
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- Contributions to the Arbitrum Ecosystem:
  - To introduce participants to the Arbitrum Layer 2 scaling solution, highlighting its benefits and applications in building efficient, cost-effective DeFi projects.
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## Adopted Methodology

This section outlines the process from initial planning through to the execution and follow-up of the workshops.

### Planning Phase

- University Selection:
  - Firstly, we established a selection criteria based on factors such as existing interest in blockchain technology, infrastructure capabilities, and student engagement levels.
  - Secondly, we conducted outreach to multiple universities across Ghana, evaluating them against our criteria to select those most aligned with our project goals.
  - Finally, we chose three universities whose student leadership demonstrated strong potential for partnership and impact: University of Ghana, Ho Technical University, and Kumasi Technical University.
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- Finally, we chose three universities whose student leadership demonstrated strong potential for partnership and

impact: University of Ghana, Ho Technical University, and Kumasi Technical University.

- Curriculum Development:
- Firstly, we conducted surveys with some potential participants and hosted a precursor web3 development [workshop](#) (which was supported by gitcoin grants) at the University for Development Studies of Ghana to assess the knowledge levels and interests of computer science students in Ghana.
- Secondly, we collaborated with blockchain educators and industry experts to develop a comprehensive, engaging curriculum tailored to the needs and interests of our target audience.
- Finally, we created a curriculum that balanced theoretical knowledge with practical, hands-on exercises, including dApp development, and insights into the Arbitrum ecosystem. [See curriculum!](#)
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## Execution Phase

- Workshop Delivery:
- Facilitator Preparation:

We prepared our team of facilitators with the workshop curriculum and delivery methods to ensure a consistent, high-quality learning experience.

- Participant Enrollment:

We launched an application process for participants in various universities, followed by a selection phase to identify those most likely to benefit from and contribute to the workshop.

- Logistics and Setup:

coordinated with the student leadership of each university to arrange workshop venues, equipment, and materials, ensuring a conducive learning environment.

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## Follow-Up:

- Feedback Collection: solicited feedback from participants after each workshop to evaluate the effectiveness of the event and identify areas for improvement.
- Community Engagement: encouraged workshop participants to remain active in the DeFi Africa community and the Arbitrum community, offering ongoing support, resources, and networking opportunities.
- Project Incubation Support: starting our HackerBoost initiative to provide mentorship and resources to participants who discussed their project concepts during the workshops and those interested to learn more, aiding in their further development and participation on the Arbitrum network.

## Community Growth And Impact

The project has had a profound impact on both the DeFi Africa community and the broader Arbitrum ecosystem. This section details the contributions made towards fostering a vibrant community of DeFi enthusiasts and developers, as well as the integration and utilization of the Arbitrum platform by workshop participants.

## Attendance Report

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image

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](https://global.discourse-cdn.com/standard17/uploads/arbitrum1/original/2X/5/5aebb3867b03222cb2eae7c511d206c59b01af0c.png)

## DeFi Africa Community

The workshops served as a catalyst for significant growth within the DeFi Africa community, drawing in a diverse group of individuals passionate about blockchain technology and decentralized finance.

- New Community Memberships:

Following the workshop series, DeFi Africa welcomed over 250 new developers, marking a 80% increase in developer community size. This growth not only reflects the heightened interest in DeFi and Web3 technologies but also underscores the value of educational initiatives in community building.

- Engagement and Collaboration:

Post-workshop surveys indicated a substantial increase in community engagement, with members actively participating in discussions, collaborative projects, and follow-up events. This enhanced engagement is testament to the workshops' success in not just educating participants but also in fostering a sense of belonging and mutual support among members.

## Arbitrum Ecosystem:

### Reflecting on the Journey

The project represented an essential step into Web3 development for most of the student developers we hosted. Recognizing the nascent stage of participants, the workshops were not merely a path to immediate project creation but as a vital educational phase preparing them for future innovation in web3 technology.

- Infact, out of the 250 new developers that joined our community, about 150 of them participated in real time, marking a significant outreach effort and engagement level within the educational phase.

### Adapted Approach to Workshop Outcomes

Recognizing most participants as new to Web3, the workshops prioritized a foundational approach, emphasizing hands-on experience. This idea underscores DeFi Africa's commitment to adaptability and our focused intent on genuinely empowering African developers with the foundational knowledge necessary for future innovation in web3 technology.

- About 30 hours of foundational content were delivered in each workshop, focusing on the basics of Web3, solidity programming, smart contract development and deployment on Arbitrum.

### Smart Contracts Deployment

Participants were guided through the creation and deployment of smart contracts on the Arbitrum network. This step served as an introductory phase to smart contract development and familiarize them with the Arbitrum ecosystem.

- Approximately 100 smart contracts were deployed to the Arbitrum sepolia network by participants, serving as a practical exercise and introduction to the ecosystem. About 60% of these contracts were pushed to github, while others promised to work more on them later before pushing.

Even Though, the smart contracts deployed were basic, these deployments signify a pivotal step towards integrating the African developer community with the Arbitrum ecosystem.

1. Showcasing Arbitrum's capabilities to a new audience, potentially setting the stage for its increased adoption.
2. All 150+ participants gained firsthand experience with Arbitrum's technology through the deployment exercises.
3. Equipped them with the necessary skills and confidence to undertake more complex projects in the future.

4. Our post-workshop surveys indicated a 70% increase in participants' confidence in their ability to learn more about web3 development and contribute to the ecosystem.

## Projects Initiated: A Forward-Looking Approach

Given the participants' early stage in their Web3 journey, immediate outcomes focused on foundational experiences rather than fully developed projects. However, this phase is invaluable, marking the start of an impactful venture into decentralized technologies.

- Future Project Potential:

While immediate tangible projects were not the outcome, the groundwork has been laid for participants to embark on innovative and impactful projects as they further their journey in the Web3 space.

## Challenges and Solutions

Below, we discuss the significant challenges encountered and the solutions implemented to overcome them.

### 1. Participant Familiarity with Web3 Technology

#### Challenge

: A significant portion of the workshop participants were new to Web3 technology, which presented an initial barrier to achieving the project's hands-on objectives, including the initiation of full-scale projects on the Arbitrum network.

#### Solution

: Recognizing this, we adjusted our curriculum to include more foundational content on blockchain and Web3 technologies. Additionally, we implemented a phased learning approach, where participants first focused on understanding the basics before moving on to more complex concepts and hands-on activities. To provide practical experience, we guided participants through the process of deploying smart contracts to the Arbitrum network, serving as a preliminary step towards building more impactful projects in the future.

### 2. Logistical Issues

#### Challenge

: Organizing in-person workshops across multiple universities presented logistical challenges, including securing venues, ensuring reliable internet access, and adhering to students safety protocols.

#### Solution

: We established strong lines of communication with the student leadership in each university early in the planning process to secure appropriate venues and address connectivity issues.

### 3. Technical Difficulties

#### Challenge

: Some participants faced technical difficulties, especially when deploying smart contracts to the Arbitrum network, due to varying levels of experience and the complexities of working with a new platform.

#### Solution

: To address this, we introduced additional support sessions focused on troubleshooting and problem-solving, facilitated by our technical team. We also provided step-by-step guides and resources tailored to the Arbitrum deployment process, ensuring participants could follow along at their own pace. Where possible, peer-to-peer support was encouraged, leveraging the knowledge within the community to help resolve issues more efficiently.

### 4. Maintaining Participant Engagement

Challenge: Maintaining high levels of engagement and motivation among participants throughout the duration of the workshops was challenging, particularly for those who were completely new to the material.

Solution: We took the time to explain the foundational details of the whole process without rushing. Also, we conducted post-workshop online sessions to guide those that could not deploy and provided resources for them to work at their own pace.

## Financial Reporting

Below is a detailed breakdown of the allocation and utilization of the grant funds throughout the various phases of the project.

Total Grant Received: \$9,750

[

web3\_buidl\_workshops\_financial\_allocation

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](<https://global.discourse-cdn.com/standard17/uploads/arbitrum1/original/2X/4/434ef9467bb051571b017bde221b2c7482ccd2e7.png>)

## Allocation and Utilization:

- Program Development and Curriculum Design: \$900
- This portion of the budget was allocated towards the development of the workshop curriculum, including compensation for experts consulted during the curriculum design phase and necessary subscriptions including internet data, notion plus, zoom pro and eventbrite plus.
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- Workshop Facilitation: \$7,050 (\$2,350 per workshop)
- Venue Rental and Accommodation: \$2,430 (\$810 per workshop) - Costs associated with securing venues at the selected universities to host the workshops, ensuring a conducive learning environment for participants.
- Meals and Refreshments: \$3,150 (\$1,050 per workshop) - Provided to maintain high levels of participant engagement and comfort during the sessions.
- Facilitator Honoraria: \$1,920 (\$640 per workshop) - Compensation for facilitators who led the workshop sessions, recognizing their expertise and contribution to the program's success.
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- Facilitator Honoraria: \$1,920 (\$640 per workshop) - Compensation for facilitators who led the workshop sessions, recognizing their expertise and contribution to the program's success.
- Publicity: \$600
- This budget line covered the costs associated with publicity activities to raise awareness of the workshops and encourage participation. This included digital advertising, social media campaigns, and production of promotional materials.
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- Technical Support and Resources: \$200
- Allocated for technical resources and support services, access to online development tools, and provision of additional resources to participants for smart contract deployment exercises on the Arbitrum network.
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- Post-Workshop Engagement and Community Building: \$550
- Funds were used to facilitate post-workshop engagement activities, including follow-up sessions, community forums, and the creation of online platforms for continued learning and collaboration among participants.
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## Future Directions

The success of this project, in terms of educational outcomes, community engagement, and fostering an environment conducive to innovation within the Web3 space, lays a solid foundation for the future. Inspired by the achievements and learnings of this initiative, DeFi Africa is poised to expand and enhance its offerings. Below, we outline our strategic vision for the future direction of our educational and community-building efforts.

- **Geographical Expansion:** Leveraging the model established through this project, we plan to extend the reach of our workshops to additional African countries, targeting regions with burgeoning tech communities but limited access to quality blockchain education.
- **Advanced Modules:** To cater to participants who have completed the initial workshops and wish to deepen their expertise, we will develop advanced modules covering topics such as Layer 2 scaling solutions, advanced smart contract development, and cross-chain interoperability.

## Future Initiatives

### 1. DeFi Africa Academy:

An online platform for continuous blockchain learning, offering both foundational and advanced courses to nurture ongoing development in the DeFi domain.

#### 1. Virtual Workshops:

Expanding our reach through online workshops, making our training accessible to a wider audience across Africa and beyond.

#### 1. NexFi HackerBoost:

A new initiative, which serves as a companion event leading to the [NexFi Expo 2024](#) is aimed at providing intensive project-based learning and support, accelerating the journey from education to real-world application for emerging Web3 developers.

#### 1. Partnerships and Funding:

We will seek new partnerships and funding opportunities to support our expanding range of programs, ensuring sustainability and impact.

#### 1. Community Building and Engagement:

Efforts will be intensified to grow our alumni network and launch public awareness campaigns, increasing visibility and engagement with blockchain technology across the continent.

#### 1. Public Awareness Campaigns:

Doing a lot, comes from informing a lot about what you are doing, and it's potential impacts on their lives. In light of this, we are going to raise the bar towards our public awareness campaign activities to ensure Web3 keeps hutching more enthusiasts everyday.

Shoutout to these amazing contributors:

[@thinkDecade](#)

[@Fembros](#)

## Appendices

### Appendix A: Workshop Agendas and Curriculum

Agenda: [Web3 BUIDL Workshop Agenda - DeFi Africa - Google Sheets](#)

Curriculum: [Notion – The all-in-one workspace for your notes, tasks, wikis, and databases.](#)

### Appendix B: Some Exciting Tweets

<https://x.com/defiafrica/status/1747336575871008772?s=20>

<https://x.com/defiafrica/status/1745807687462379899?s=20>

<https://x.com/realsahabia/status/1764354375848264083?s=20>

<https://x.com/defiafrica/status/1764961637704843365?s=20>

<https://x.com/defiafrica/status/1772290519390937285?s=20>

<https://x.com/defiafrica/status/1771477151864304014?s=20>

<https://x.com/defiafrica/status/1774351931835568635?s=20>

<https://x.com/defiafrica/status/1763911699956920486?s=20>

## **Appendix C: Workshop Photographs and Media**

[Photographs of Workshop at UG](#)

[Photographs of Workshop at HTU](#)

[Photographs of Workshop at KsTU](#)

## **Appendix D: Project Milestone Reports**

[Notion](#)

### **Notion – The all-in-one workspace for your notes, tasks, wikis, and databases.**

A new tool that blends your everyday work apps into one. It's the all-in-one workspace for you and your team

## **Appendix E: POAPS Collectors**

[POAP Gallery](#)

### **Participants of Web3 BUIDL Workshop @Legon, University of Ghana**

[ Supply: 21 ] Congratulations on participating in the DeFi Africa's Web3 BUIDL Workshop held at Legon, University of Ghana! As a token of recognition for your active engagement and commitment to learning about the exciting world of Web3 development,...

[POAP Gallery](#)

### **Participant of Web3 BUIDL Workshop at Ho Technical University from Feb. 29th...**

[ Supply: 53 ] Congratulations on participating in DeFi Africa's Web3 BUIDL Workshop held at Ho Technical University of Ghana! As a token of recognition for your active engagement and commitment to learning about the exciting world of Web3...

[POAP Gallery](#)

### **Participant of Web3 BUIDL Workshop at Ho Technical University from Mar. 21 -...**

[ Supply: 35 ] Congratulations on participating in DeFi Africa's Web3 BUIDL Workshop held at Kumasi Technical University of Ghana! As a token of recognition for your active engagement and commitment to learning about the exciting world of Web3...

## **Appendix F: Some Repositories From Workshops**

[GitHub](#)

### **GitHub - DeFi-Africa-Network/fundbrave-smartcontracts: A demo crowdfunding...**

A demo crowdfunding platform for Arbitrum Developer Workshops - DeFi-Africa-Network/fundbrave-smartcontracts

[GitHub](#)

### **GitHub - DeFi-Africa-Network/Demo-Contracts-**

Contribute to DeFi-Africa-Network/Demo-Contracts- development by creating an account on GitHub.

[GitHub](#)

### **GitHub - DeFi-Africa-Network/UG\_Group\_One**



Contribute to DeFi-Africa-Network/UG\_Group\_One development by creating an account on GitHub.

[GitHub](#)

### **[GitHub - DeFi-Africa-Network/UG\\_Group\\_Two](#)**

Contribute to DeFi-Africa-Network/UG\_Group\_Two development by creating an account on GitHub.

[GitHub](#)

### **[GitHub - DeFi-Africa-Network/fundbrave-dapp: Dapp for fundbrave demo...](#)**

Dapp for fundbrave demo crowdfunding platform (tutorial purposes) - DeFi-Africa-Network/fundbrave-dapp

[GitHub](#)

### **[GitHub - DeFi-Africa-Network/HTU\\_Group\\_One](#)**

Contribute to DeFi-Africa-Network/HTU\_Group\_One development by creating an account on GitHub.

[GitHub](#)

### **[GitHub - DeFi-Africa-Network/HTU\\_Group\\_Two](#)**

Contribute to DeFi-Africa-Network/HTU\_Group\_Two development by creating an account on GitHub.

[GitHub](#)

### **[GitHub - DeFi-Africa-Network/HTU\\_Group\\_Three](#)**

Contribute to DeFi-Africa-Network/HTU\_Group\_Three development by creating an account on GitHub.

[GitHub](#)

### **[GitHub - DeFi-Africa-Network/HTU\\_Group\\_Four](#)**

Contribute to DeFi-Africa-Network/HTU\_Group\_Four development by creating an account on GitHub.

[GitHub](#)

### **[GitHub - DeFi-Africa-Network/KsTU\\_Group\\_One](#)**

Contribute to DeFi-Africa-Network/KsTU\_Group\_One development by creating an account on GitHub.

[GitHub](#)

### **[GitHub - DeFi-Africa-Network/KsTU\\_Group\\_Two](#)**

Contribute to DeFi-Africa-Network/KsTU\_Group\_Two development by creating an account on GitHub.

[GitHub](#)

### **[GitHub - DeFi-Africa-Network/KsTU\\_Group\\_Three](#)**

Contribute to DeFi-Africa-Network/KsTU\_Group\_Three development by creating an account on GitHub.