



UmojaHack
AFRICA 2022



PARTICIPANT PACK

UmojaHack Africa 2022

Official information pack for students participating in UmojaHack Africa 2022 (19-20 March)

Congratulations on being a part of this exciting event. This document includes all the information you will need to participate in UmojaHack Africa 2022, as well as details on how to keep in touch with us, and how to find out more if you have any questions.

Important Notice

If you haven't already please ensure that you have [registered for the event](#) and have also [registered via the Zindi platform](#) - this is a prerequisite to your participation and you will now be able to compete if you have not done the above.

Please make sure you read through this document as it contains critical information regarding your participation in UmojaHack Africa 2022.

1. Your participation and connecting with others

You will be invited to join the official competition communication channel on Discord. This is a web platform that allows instant messaging and voice communication. This will be used for critical communication from the Organisers, and to help deal with issues and problems effectively on the day as well as connecting you to your fellow participants. Please respect others in the channel and do not send unnecessary or unrelated messages.

If you do not already have a Discord account, you can sign up here: [Register for Discord here](#)

You can access discord via your browser, download on to your computer or use the app:
[Download Discord here](#)





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You will be invited to join the channel and will be provided with instructions on using the channel closer to the event.

To view the full list of universities, clubs, bootcamps etc. hosting a hackathon or serving as a local hub for students during the UmojaHack Africa 2022 weekend [please click here](#). Note the list will be continuously updated so please keep an eye out for updates.

Please contact us if you have any issues downloading Discord or accessing the list universities list - umojahack.africa@oddiyevents.com.

2. Unlocking the Zindian Spirit

Unleash your inner Zindian and join us in celebrating the awesomeness and diversity of the Zindi community:

- Upload a photo of yourself to be featured on Zindi's social channels during the UmojaHack Africa 2022 competition weekend. Please ensure you include your name and university in the image description.
- Submit your favourite song for the official UmojaHack Africa 2022 Spotify Playlist.

[Make your submissions here](#)

3. Livestream link and schedule:

UmojaHack Africa 2022 will run for two days, and we will live-stream the opening and closing sessions as well as other sessions over the course of the weekend, all hosted on Zoom. All times are GMT.

You can join the event on each day via the below links:

Saturday 19 March

- Join the session here: <https://us02web.zoom.us/j/85966888212?pwd=UzlGSFBrZ1ZRd3pWUEJqTHo3SVZ6UT09>
- Session password: **Uhack22**





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Sunday 20 March

- Join the session here: <https://us02web.zoom.us/j/88299327429?pwd=VWl5RHRCZis0NjNOM2o1NjNGczErZz09>
- Session password: **Uhack22**

Please note the event will open only on the weekend of the Hackathon, should you try to access the links prior to this, you will be unsuccessful. The links will also be reiterated to participants closer to the event.

Schedule (all times are GMT)

Saturday 19 March

08:00 - 09:15 Welcome to the event, sponsors' address, orientation and introduction to the challenges on Zoom.

09:15 Competition launch

Hack! Students form teams and work on their chosen challenge. Questions and issues during this time can be addressed via the Discord channel.

09:15 - 00:00 Hack all day and all night!

Key times to note:

- 12:00 - 12:35 - Lunch, check-in and live chats on Discord/Zoom
- 12:25 - 12:35 - Introduction to Google Colab
- 12:35 - 12:55 - Technical conversations about the challenge
- 17:15 - 17.25 - Sponsor address
- 17:30 - UmojaHack Africa 2022 stream sign off





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Saturday 19 March

00:00 - 08:00 Sleep

08:00 - 08:15 Day 2 Morning check in and schedule for the day

08:15 - 17:00 Hack Day 2

17:00 Submissions to Zindi close

17:00 - 17:30 Announcements of winners, prizes etc.

17:30 Event close

Key times to note:

- 08:15 - 08:35 - 2 x Speaker Sessions
- 12:00 - 12:10 - Speaker session

A more detailed schedule will be shared in due course.

You will need to join the livestream on Zoom from **7.45AM GMT on 19 and 20 March**. We will use the livestream for the official launch of the competition, the technical briefing and the prize giving. Over the course of the competition, the livestream will continue to bring you updates, discussions of the challenges, spot prizes and much more. We will also use the stream to check in with universities and teams across Africa. Make sure to stay tuned!



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4. Competitions, access and data

We are pleased to announce the following competitions for UmojaHack Africa 2022:

Faulty Air Quality Sensor (Beginner)

AirQo's air quality sensing network has more than 120 low-cost devices deployed across Uganda; in most cases, these devices are deployed in unmonitored or perilous environments.

Device failure detection and monitoring is critical to AirQo's business; faulty devices need to be identified, isolated and fixed or replaced with urgency. Data received from a device can be used to identify whether the device is working correctly or not.

In this challenge, your task is to develop a multi-class classification model to identify and classify faults according to their categories specified. The model can be used by AirQo to automatically flag a device that is returning faulty data.

View the challenge: [UmojaHack Africa 2022: Faulty Air Quality Sensor Challenge](#)

Official practice challenge: [UmojaHack 2022 Practice Challenge](#)

Monthly Insurance Claim Prediction Challenge (Intermediate)

Short-term insurance claims are one of the largest costs in the insurance industry, and are extremely difficult to forecast. Zimnat Insurance wants to predict the value of future claims per client, in order to better forecast annual costs.

The objective of this challenge is to create a machine learning model to predict how much a client will claim from Zimnat per month for a whole year.

The solution will aid Zimnat in being better prepared to address claims that are submitted, and improve customer satisfaction by alerting clients to possible claims they will make in the future.

View the challenge: [UmojaHack Africa 2022: Monthly Insurance Claim Prediction Challenge](#)

Similar challenge for practice: [UmojaHack 2022 Intermediate Practice Challenge](#)





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African Snake Anti-venom Binding Challenge (Advanced)

Snake bites cause more than 100 000 deaths and more than 300 000 permanent disfigurements every year, caused by toxin proteins in snake venom. Injury and death from snake bites is more common in poor socioeconomic conditions.

Currently, the only effective treatment against snakebite envenoming consists of unspecified cocktails of antibodies extracted from immunised production animals. These anti-venom antibodies work unreliably across different species of snake.

In this challenge, you are tasked to build a machine learning model to predict how strongly a given string of amino acids from a snake venom toxin protein binds to eight different commercial anti-venom antibodies.

View the challenge: [UmojaHack Africa 2022: African Snake Antivenom Binding Challenge](#)

Similar challenge for practice: [UmojaHack 2022 Advanced Practice Challenge](#)

We encourage you to practice on existing Zindi challenges before the day of the hackathon, in order to be as well-prepared as possible for the challenge.

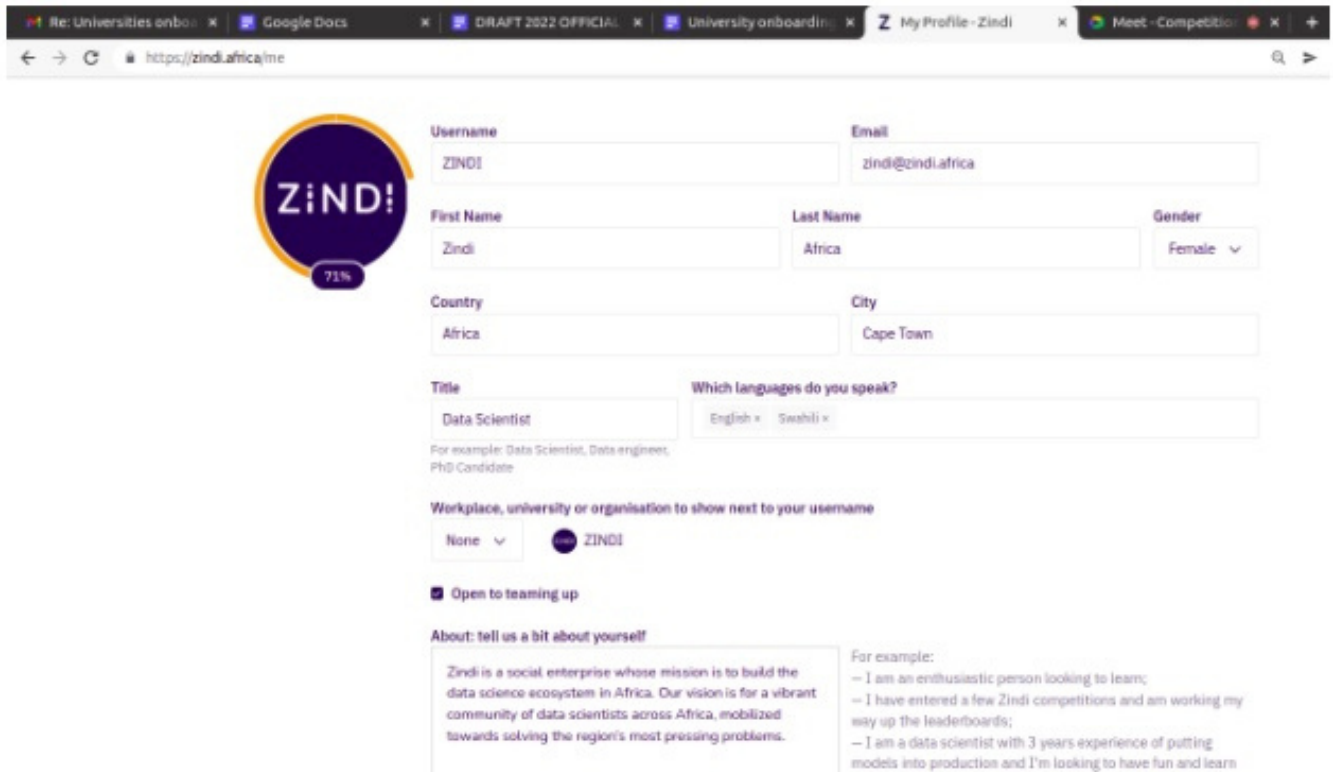
We encourage you and your teams to choose one challenge to take part in. you will self-select into your preferred challenges on the day of the event.

NB: Please ensure that you:

1. register for UmojaHack Africa 2022 at this link: bit.ly/uha22-signup
2. register on Zindi before the day at zindi.africa/signup
3. have listed your university as your organisation to show on the leaderboard.

To do this, please complete your profile info at <https://zindi.africa/me> and make sure to select the workplace or organisation to show next to your username (see screenshot below).



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The screenshot shows a web browser with multiple tabs open, including 'Universities onboard', 'Google Docs', 'DRAFT 2022 OFFICIAL', 'University onboardin', 'My Profile - Zindi', and 'Meet - Competition'. The address bar shows 'https://zindi.africa/me'. The main content area displays a Zindi profile form with the following fields and values:

- Username:** ZINDI
- Email:** zindi@zindi.africa
- First Name:** Zindi
- Last Name:** Africa
- Gender:** Female
- Country:** Africa
- City:** Cape Town
- Title:** Data Scientist
- Which languages do you speak?:** English, Swahili
- Workplace, university or organisation to show next to your username:** None
- Open to teaming up:** ☒
- About: tell us a bit about yourself:** Zindi is a social enterprise whose mission is to build the data science ecosystem in Africa. Our vision is for a vibrant community of data scientists across Africa, mobilized towards solving the region's most pressing problems.

The challenges are uploaded on Zindi ([click here](#)) and you are free to view them, read about the challenges and begin preparation (note that you will only be able download the data when it becomes available after the start of the competition). In order to sign up for the challenge, you will need an access code, which will be emailed to you a week before the event.

Please note that this code is only for official participants of the hackathon - do not share.





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5. Prizes

Zindi will offer a total prize pool of \$10,000 USD to the teams placing 1st, 2nd and 3rd in each of the three challenges across all universities in Africa, as well as the top-ranked team or individual from each African country that didn't already win a top-three prize. There will also be additional (non-monetary) prizes for teams and participants on the weekend, including learning and career opportunities from our generous sponsors.

PLEASE NOTE that Zindi will only award ONE PRIZE PER UNIVERSITY; in other words, if more than one individual or team from a specific university would be eligible to win a prize, we will award a prize to the higher-ranked individual or team only. This is in the interest of spreading our awards to as many organisations and countries as possible.

UmojaHack Africa 2022: African Snake Anti-venom Binding Challenge (ADVANCED)

1st prize: \$1200
2nd prize: \$1000
3rd prize: \$800

UmojaHack Africa 2022: Monthly Insurance Claim Prediction Challenge (INTERMEDIATE)

1st prize: \$1000
2nd prize: \$800
3rd prize: \$600

UmojaHack Africa 2022: Faulty Air Quality Sensor Challenge (BEGINNER)

1st prize: \$800
2nd prize: \$600
3rd prize: \$400

Country prize: \$100 (given to the highest ranking user/team from a specific country that didn't win any other prize)



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6. Competition Rules

- Teams may win in only one challenge category, and are encouraged to enter only one.
- Zindi will only award one prize per university, academy or educational institution; in other words, if more than one individual or team from a specific organisation would be eligible to win a prize, we will award a prize to the higher-ranked individual or team only.
- Participants may compete individually or in teams of up to four people. Members of teams need to come from the same university, academy or educational institution.
- You may not win if you have been employed, interned or been associated with the host(s) or sponsor(s) of this challenge.
- Teams will be judged based on their ranking on the dedicated Zindi leaderboard at the time of competition close.
- All participants in the hackathon must be registered students (undergraduate or graduate) at the university, academy or educational institution they represent. Lecturers, university staff, and alumni may participate in a mentorship or advisory capacity only.
- Teams and individuals may not collaborate or share information with one another.
- All solutions must use machine learning, but teams are permitted and encouraged to use exploratory data analysis in building their solutions.
- All solutions must use publicly-available, open-source packages and languages only.
- Solutions must use only the allowed and available datasets.
- Participants caught cheating or breaking any competition rules will be immediately disqualified from the competition.
- Universities caught cheating or allowing teams or participants to cheat will be immediately disqualified from the competition.



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- The winning code must be submitted to Zindi for review and validation immediately at the close of the competition. In the interest of logistics, code review will take place only after the competition has closed and winners have been announced.

Important note:

By entering this hackathon you acknowledge that Zindi reserves the right to disqualify winning teams before, during, and after the competition. Code review will take place after the winners have been announced but before prize money has been paid; if upon reviewing the winning code, it shows that the winning team did not follow competition rules in any way whatsoever, Zindi may disqualify the team and their university. This disqualification and the reasons for it will be made public, and the disqualified team will not be eligible for receiving the prizes, regardless of any earlier prize announcements. Zindi reserves the right to revoke prizes at any stage if there is evidence of teams or universities breaking any competition rules or otherwise behaving in a way that brings Zindi into disrepute. In this case, the prizes will be awarded to the next highest-ranked eligible team and university. All decisions made by Zindi are final.

7. Marketing

The official hashtags for the event are [#UmojaHackAfrica2022](#) [#UHA22](#) [#ZindiHack](#) - remember to share your experience and keep the conversation going on social media leading up to the event and especially on the day. We also encourage you to take photos and share them with us via social media, as well as sending them through to us after the event.

Unlock the Zindian Spirit, show your country pride and share your involvement across your social media today. [You can find your relevant country's graphic here.](#)

[Access the official UmojaHack Africa 2022 Student Social Media Toolkit Here](#)



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8. Further information and contact

For more information, please check out the official event website www.umojahack.africa.

If you have any questions or concerns, please [contact us](#).

Thank you for joining us for this amazing event!

Proudly sponsored by:

