



Kenya Clinical Reasoning Challenge

\$10 000



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~2 mo

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03 Apr 25

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30 Jun 25



Can your model match real clinicians in rural Kenya healthcare?

In many parts of the world, frontline healthcare workers make life-or-death decisions under pressure, with limited resources and specialist support. This challenge takes you to the heart of Kenyan healthcare, where nurses working across diverse counties and health facility levels face real-world clinical cases every day.

In this challenge, you'll be given 400 authentic clinical prompts—each one a carefully crafted vignette combining a nurse's background and a complex medical situation. Your task is to predict the clinician's response to each scenario, replicating the reasoning of trained professionals closely as possible.

The vignettes span a wide range of medical domains, from maternal and child health to critical care, and were originally evaluated by expert clinicians and leading AI models (including GPT-4.0, LLAMA, and GEMINI). Each prompt includes details like the patient's presentation, nurse experience level, and facility type, simulating the nuance and challenge of real clinical environments in Kenya.

This dataset is small—only 400 training and 100 test samples—but that's because collecting high-quality, expert-labelled medical data is hard. These are real-world cases, and every entry reflects the constraints and pressures faced by healthcare workers in underserved regions. In resource-limited settings, clinical decisions must be fast, accurate, and sensitive to both patient condition and system limitations. Your solution should aim to reflect that balance.



About PATH

PATH is an international NGO dedicated to health innovation to close the global health equity gap. [PATH Living Labs](#) (LL) Initiative is a global team of 44 human-centered design specialists dedicated to co-creating solutions with users to rapidly design, test, and scale products to the long-standing challenges. The Living Labs team, in collaboration with Moi University created the dataset for this challenge as part of a project investment focused on evaluating generative AI tools in healthcare settings, which you can read more about it here: <https://www.path.org/what-we-are/programs/digital-health/large-language-models-for-health-equity/>

About the Global AI Summit on Africa

The Centre for the Fourth Industrial Revolution and the Ministry of ICT & Innovation, in collaboration with the World Economic Forum, will host the inaugural Global AI Summit on Africa in Kigali, Rwanda under the theme: "AI and Africa's Demographic Dividend: Reimagining Economic

Opportunities for Africa’s Workforce.” This premier event will gather world leaders, government ministers, CEOs, civil society, start-ups, investors, and international organizations to shape Africa's role in the global AI economy.

Evaluation

The evaluation metric for this challenge is the [ROUGE Score](#).

All clinician responses have been turned to lower case, punctuation removed and all paragraphs replaced with a space.

For every row in the dataset, submission files should contain 2 columns: ID and Translation.

Your submission file should look like this:

Master_Index	Clinician
ID_AAAitMaH	summary a 30 yr old...

If you are in the top 10 on the leaderboard you will be requested to prepare a [video](#) to share with the host along with your code.

In the video you submit, you need to explain your approach to the problem as clearly as possible, including any relevant insights into the problem you discovered along the way (e.g. a clever way to engineer the raw features).

Final prizes will be judged and awarded by the host, based on the following criteria.

- The clarity of your pitch (how easy is it to understand the solution) - 25%
- The insights you obtained from tackling the problem - 15%
- How implementable is your code in a real application? Have you taken into account that the solution will be deployed on an edge device? - 25%
- Novel ideas taking into account complexities and real world applications - 25%
- Code that is clean, easy to read and work with - 10%

Resource Restrictions

Your solution must be

- Quantized to reduce memory usage and improve inference speed
- Inference must be less than 100ms per vignette
- Inference RAM usage of less than 2 GB
- The maximum number of model parameters is 1 billion parameters
- Training should take no longer than 24 hours on a GPU similar to an NVIDIA T4 while inference should be on an NVIDIA Jetson Nano or equivalent.

Prizes

1st place: \$5 000 USD

2nd place: \$3 000 USD

3rd place: \$2 000 USD

There are 5 000 Zindi points available. You can read more about [Zindi points here](#).

The results of this challenge will be written in a publication and challenge winners acknowledged as authors.

How to get started with Zindi

 [What to know to get started with Zindi Challenges](#)

How to enroll in your first Zindi competition

How to enrol in your first Zindi competition



How to create a team on Zindi

How to create a team on Zindi



How to use Colab on Zindi

How to use Colab on Zindi



How to mount a drive on Colab

How to mount a drive on Colab



Rules

- Languages and tools: You may only use open-source languages and tools in building models for this challenge.
- Who can compete: Open to all
- Submission Limits: 10 submissions per day, 300 submissions overall.
- Team size: Max team size of 4
- Public-Private Split: Zindi maintains a public leaderboard and a private leaderboard for each challenge. The Public Leaderboard includes approximately 30% of the test dataset. The private leaderboard will be revealed at the close of the challenge and contains the remaining 70% of the test set.
- Data Sharing: **Data is private property of the client. Commercial and non-commercial use is NOT permitted outside of creating a solution to submit to this challenge. A public release of this data is coming soon, which will have a set of licenses that allow for both commercial and non-commercial re-use.**
- Code Review: Top 10 on the private leaderboard will receive an email requesting their code at the close of the challenge. You will have 4 hours to submit your code.
- Code sharing: Multiple accounts, or sharing of code and information across accounts not in teams, is not allowed and will lead to disqualification.
- Solutions of value: Solutions handed over to clients must be of value to the client, regardless of leaderboard ranking.

ENTRY INTO THIS CHALLENGE CONSTITUTES YOUR ACCEPTANCE OF THESE OFFICIAL CHALLENGE RULES.

Full Challenge Rules

This challenge is open to all.

Teams and collaboration

You may participate in challenges as an individual or in a team of up to four people. When creating a team, the team must have a total submission count less than or equal to the maximum allowable submissions as of the formation date. A team will be allowed the maximum number of submissions for the challenge, minus the total number of submissions among team members at team formation. Prizes are transferred only to the individual players or to the team leader.

Multiple accounts per user are not permitted, and neither is collaboration or membership across multiple teams. Individuals and their submissions originating from multiple accounts will be immediately disqualified from the platform.

Code must not be shared privately outside of a team. Any code that is shared, must be made available to all challenge participants through the platform. (i.e. on the discussion boards).

The Zindi data scientist who sets up a team is the default Team Leader but they can transfer leadership to another data scientist on the team. The Team Leader can invite other data scientists to their team. Invited data scientists can accept or reject invitations. Until a second data scientist accepts an invitation to join a team, the data scientist who initiated a team remains an individual on the leaderboard. No additional members may be added to teams within the final 5 days of the challenge or last hour of a hackathon.

The team leader can initiate a merge with another team. Only the team leader of the second team can accept the invite. The default team leader is the leader from the team who initiated the invite. Teams can only merge if the total number of members is less than or equal to the maximum team size of the challenge.

A team can be disbanded if it has not yet made a submission. Once a submission is made individual members cannot leave the team.

All members in the team receive points associated with their ranking in the challenge and there is no split or division of the points between team members.

Datasets, packages and general principles

The solution must use publicly-available, open-source packages only.

You may use only the datasets provided for this challenge.

You may use pretrained models as long as they are openly available to everyone.

Automated machine learning tools such as automl are not permitted.

If the error metric requires probabilities to be submitted, do not set thresholds (or round your probabilities) to improve your place on the leaderboard. In order to ensure that the client receives the best solution Zindi will need the raw probabilities. This will allow the clients to set thresholds to their own needs.

Data is private property of the client. Commercial and non-commercial use is NOT permitted outside of creating a solution to submit to this challenge. A public release of this data is coming soon, which will have a set of licenses that allow for both commercial and non-commercial re-use.

You must notify Zindi immediately upon learning of any unauthorised transmission of or unauthorised access to the challenge data, and work with Zindi to rectify any unauthorised transmission or access.

Your solution must not infringe the rights of any third party and you must be legally entitled to assign ownership of all rights of copyright in an to the winning solution code to Zindi.

Submissions and winning

You may make a maximum of 10 submissions per day.

You may make a maximum of 300 submissions for this challenge.

Before the end of the challenge you need to choose 2 submissions to be judged on for the private leaderboard. If you do not make a selection your 2 best public leaderboard submissions will be used to score on the private leaderboard.

During the challenge, your best public score will be displayed regardless of the submissions you have selected. When the challenge closes your best private score out of the 2 selected submissions will be displayed.

Zindi maintains a public leaderboard and a private leaderboard for each challenge. The Public Leaderboard includes approximately 20% of the test dataset. While the challenge is open, the Public Leaderboard will rank the submitted solutions by the accuracy score they achieve. Upon close of the challenge, the Private Leaderboard, which covers the other 80% of the test dataset, will be made public and will constitute the final ranking for the challenge.

Note that to count, your submission must first pass processing. If your submission fails during the processing step, it will not be counted and not receive a score; nor will it count against your daily submission limit. If you encounter problems with your submission file, your best course of action is to ask for advice on the challenge page.

If you are in the top 10 at the time the leaderboard closes, we will email you to request your code. On receipt of email, you will have 48 hours to respond and submit your code following the Reproducibility of submitted code guidelines detailed below. Failure to respond will result in disqualification.

If your solution places 1st, 2nd, or 3rd on the final leaderboard, you will be required to submit your winning solution code to us for verification and you thereby agree to assign all worldwide rights of copyright in and to such winning solution to Zindi.

If two solutions earn identical scores on the leaderboard, the tiebreaker will be the date and time in which the submission was made (the earlier solution will win).

The winners will be paid via bank transfer, PayPal if payment is less than or equivalent to \$100, or other international money transfer platform. International transfer fees will be deducted from the total prize amount, unless the prize money is under \$500, in which case the international transfer fees will be covered by Zindi. In all cases, the winners are responsible for any other fees applied by their own bank or other institution for receiving the prize money. All taxes imposed on prizes are the sole responsibility of the winners. The top winners or team leaders will be required to present Zindi with proof of identification, proof of residence and a letter from your bank confirming your banking details. Winners will be paid in USD or the currency of the challenge. If your account cannot receive US Dollars or the currency of the challenge then your bank will need to provide proof of this and Zindi will try to accommodate this.

Please note that due to the ongoing Russia-Ukraine conflict, we are not currently able to make prize payments to winners located in Russia. We apologise for any inconvenience that may cause, and will handle any issues that arise on a case-by-case basis.

Payment will be made after code review and sealing the leaderboard.

You acknowledge and agree that Zindi may, without any obligation to do so, remove or disqualify an individual, team, or account if Zindi believes that such individual, team, or account is in violation of these rules. Entry into this challenge constitutes your acceptance of these official challenge rules.

Zindi is committed to providing solutions of value to our clients and partners. To this end, we reserve the right to disqualify your submission on the grounds of usability or value. This includes but is not limited to the use of data leaks or any other practices that we deem to compromise the inherent value of your solution.

Zindi also reserves the right to disqualify you and/or your submissions from any challenge if we believe that you violated the rules or violated the spirit of the challenge or the platform in any other way. The disqualifications are irrespective of your position on the leaderboard and completely at the discretion of Zindi.

Please refer to the FAQs and Terms of Use for additional rules that may apply to this challenge. We reserve the right to update these rules at any time.

Reproducibility of submitted code

If your submitted code does not reproduce your score on the leaderboard, we reserve the right to adjust your rank to the score generated by the code you submitted.

If your code does not run you will be dropped from the top 10. Please make sure your code runs before submitting your solution.

Always set the seed. Rerunning your model should always place you at the same position on the leaderboard. When running your solution, if randomness shifts you down the leaderboard we reserve the right to adjust your rank to the closest score that your submission reproduces.

Custom packages in your submission notebook will not be accepted.

You may only use tools available to everyone i.e. no paid services or free trials that require a credit card.

Read [this article](#) on how to prepare your documentation and [this article](#) on how to ensure a successful code review.

Consequences of breaking any rules of the challenge or submission guidelines:

- First offence: No prizes for 6 months and 2000 points will be removed from your profile (probation period). If you are caught cheating, all individuals involved in cheating will be disqualified from the challenge(s) you were caught in and you will be disqualified from winning any

challenges for the next six months and 2000 points will be removed from your profile. If you have less than 2000 points to your profile your points will be set to 0.

- Second offence: Banned from the platform. If you are caught for a second time your Zindi account will be disabled and you will be disqualified from winning any challenges or Zindi points using any other account.

Teams with individuals who are caught cheating will not be eligible to win prizes or points in the challenge in which the cheating occurred, regardless of the individuals’ knowledge of or participation in the offence.

Teams with individuals who have previously committed an offence will not be eligible for any prizes for any challenges during the 6-month probation period.

Monitoring of submissions

We will review the top 10 solutions of every challenge when the challenge ends.

We reserve the right to request code from any user at any time during a challenge. You will have 24 hours to submit your code following the rules for code review (see above). Zindi reserves the right not to explain our reasons for requesting code. If you do not submit your code within 24 hours you will be disqualified from winning any challenges or Zindi points for the next six months. If you fall under suspicion again and your code is requested and you fail to submit your code within 24 hours, your Zindi account will be disabled and you will be disqualified from winning any challenges or Zindi points with any other account.



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Status

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