Humanitarian Outcomes

Consultancy job notice

Data science consultant - Remote

September 4, 2025

Humanitarian Outcomes is hiring a short-term data science consultant (October-November 2025). We are looking for a data scientist or applied mathematician experienced to help refine the algorithm behind the <u>Global Database of Humanitarian Organisations (GHDO)</u> – a unique global compendium of 5,000+ humanitarian actors. The consultant will evaluate and troubleshoot the system for imputing missing organisational data and fix calculation errors, testing for improved accuracy.

Programme background

The GHDO has been maintained by Humanitarian Outcomes since 2010, providing an annually updated compendium of over 5,000 organisations that provide aid in humanitarian crises. The database includes basic organisational and operational information (ex. annual budgets and staffing) numbers) on these humanitarian providers, which include international nongovernmental organisations (grouped by federation), national NGOs that deliver aid within their own borders, UN humanitarian agencies, and the International Red Cross and Red Crescent Movement.

For organisations where no information is available, the GDHO algorithm imputes missing figures based on a system of tier averages. A visualization of this system can be found in our <u>process</u> <u>infographic</u> or <u>project summary document</u>. These imputations allow us to estimate totals for the humanitarian sector, and these figures and analysis are used for our commissioned research (on the public database the imputed missing data shows as blank cells). Details on our research methodology, imputation algorithm, and coding parameters can be found in the <u>GDHO Codebook</u>.

Role

October-November 2025, the data science consultant will assist the Humanitarian Outcomes database team with improving and validating the algorithmic calculations built into the GDHO. The consultant will primarily work with the Data Programme Manager and Senior Database/Website Developer. The consultancy assignment includes:

- Completing an initial scoping of the dataset and presenting a preliminary statistical evaluation
- Addressing the known calculation errors and statistical inconsistencies
- Suggesting improved calculations and missing data imputation methodology
- Coordinating with the Humanitarian Outcomes team to implement the changes and test the new imputation methodology

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Qualifications

Humanitarian Outcomes is seeking an individual with the following qualifications for this short-term assignment:

- Advanced degree (or equivalent professional experience) in mathematics, statistics, data science, or machine learning
- Experience working with large datasets
- Experience with database imputations, missing data and/or algorithmic calculations

Additional experience in the following areas would be considered an asset:

- Large financial datasets
- Humanitarian or not-for-profit databases
- Drupal/PHP

To apply

To apply, please submit a CV and cover letter including your proposed daily rate (USD) to Meriah-jo.breckenridge@humanitarianoutcomes.org by close of business on September 11, 2025. Interviews will be scheduled for the week of September 15, 2025.