LLMs for evidence-based decision making in development

The deadline for submissions is 23rd February 2024 at 11:59pm GMT.

Want to contribute to the UK Civil Service's most innovative programme?

The Frontier Technologies Hub, which is funded by the Research and Evidence Directorate (RED) within UK Foreign Commonwealth and Development Office (FCDO) at the intersection of tech, innovation, and international development. We work across three main areas:

⬜ ⚡ Livestreaming explores the use of frontier technologies by working with partners all over the world to test and scale tech with the potential for positive social impact.

⬜ ⚡ Futures connects FCDO people with one another and the world of tech, equipping them to apply frontier technologies in their programmes.

⚡ Hub Research gathers & shares what we learn and dives deeper into areas where tech has the greatest potential for doing good.

The Frontier Technologies Hub is managed by three partners: Results for Development (R4D), DT Global (formerly IMC Worldwide), and Brink. It's funded by UK Aid from the UK Government. To find out more about the programme and its goals, visit our [website](#)

What's the opportunity

The volume of information on the topic of international development, even within sub-fields, is large and growing faster than development professionals can keep pace with. It is common that there is relevant knowledge that a development professional would benefit from knowing about but that they are unaware of due to the time required to find that knowledge. Even when they have found relevant knowledge, it is time consuming to process that knowledge into a form that is useful for decision making.

In partnership with the Frontier Tech Hub, the FCDO are developing and testing an LLM-based tool that could quickly find relevant knowledge from publicly available sources and process that knowledge into a variety of forms useful for decision making. The tool would enable development professionals to leverage a more comprehensive knowledge base, faster, more efficiently and with less friction to improve the delivery of policy and programming.

Beyond developing a new tool, this project will contribute to learning that will shape how the FCDO and development professionals use AI tools. We aim to advance learning regarding how to safely get the most out of new tools and evaluate the strengths and weaknesses of different technical approaches.

Scope of work

The team are looking for an individual/team to provide technical guidance and to build and test an MVP of the tool. Responsibilities would include:

- Providing technical expertise on a variety of topics, such as:
  - Use of the right digital tools for the project:
    - Approaches to cloud services, web-hosting, development environments.
    - Approaches to collaboration on LLM tools with our international development partners, including collaboration tools like github.
    - Ensure approaches are consistent with the principles for digital development
  - Designing LLM-tools
    - The advantages/disadvantages of different foundational models
    - Safety requirements
    - Approaches to achieving the desired functionality e.g. retrieval augmented generation, prompt-engineering, fine tuning, map reduce/map refine.
    - Approaches to testing output quality.
  - Support in setting up a sustainable development environment in which to build and test the tool and in which to collaborate with external partners.
  - Support in building the tool. This would probably include working with Python (using libraries such as Langchain) and cloud services (most likely to be Azure but knowledge of other services is useful).

Expected outputs

- A functional, sustainable development environment for building and testing the tool and for collaborating with external partners.
- An MVP of the tool, with a basic user interface.
- An outline and analysis of the development process, including a description of the process, key lessons learned, and recommendations for future work.

Experience

- Experience of enabling collaboration on software projects between multiple organisations.
- Experience of using Github for collaboration on software projects.
- Experience of supporting less experienced developers and data scientists to work effectively together.

- Experience developing LLM-based tools or applications. Previous experience in using Retrieval Augmented Generation is especially useful.
- Experience of using cloud platform services (Azure, AWS, GCP). Previous experience with Azure services such as Azure Machine Learning or Azure Data factory services is especially useful.
- Basic experience of building user interfaces e.g. frontend to LLM-based chatbot.
- Experience of documenting development process, lessons learned and future recommendations.

Application Instructions

Please submit the following materials to FTLenquiries@dt-global.com (with name in the subject line):

1. Current CV/s tailored to meet the requirements of the position
2. A short covering letter outlining your relevant experience and proposed approach to the scope of work (no more than 400 words)
3. A proposed budget and timeline referencing the scope of work with LoE and daily rate (GBP) specified

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Evaluation Criteria

Criterion	Maximum Total points
Experience: Strength of applicant/s relevant experience as delineated in the experience section above.	80
Strength of commercial proposal: Applications will be scored on the extent to which daily fee rate differs from the proposed rate of £750 P.D. and expected LoE of 30 days	20

Enquiries

Please contact FTLenquiries@DT-Global.com for further enquiries regarding this Terms of Reference or for further information on the Frontier Technologies Programme. Title your enquiry 'Enquiry - AI Technical Expertise'