Expression of Interest (EOI) EI24-0001: AI experts, machine learning and NLP engineers to support FIND in the implementation of projects for its AI strategy

BACKGROUND

FIND is a global non-profit organization dedicated to accelerating the development, evaluation, and delivery of high-quality, affordable diagnostic tests for poverty-related diseases. We have two different roles with overlapping skillsets for which we are publishing an expression of interest. These roles (# 1 and #2) are as follows:

1   FIND has developed expertise in the evaluation and validation of artificial intelligence (AI) based diagnostics to inform global policy makers and we have developed a validation platform, built in a virtual environment, to be used in the evaluation of AI based solutions for medical imaging. We are looking to expand our ability to independetly evaluate novel AI based technologies, including large language models (LLMs) for specific high priority diseases and to better inform partners on AI product selection and optomization.

2   FIND is also interested in the development of Natural language processing (NLP) tools to develop a Dx knowledge database across the value chain and would like to evaluate how to adopt AI technologies, more specifically NLP algorithms and tools to create a next generation knowledge management system that will be beneficial to several FIND departments.

Some key areas and use cases where AI based diagnostics would be beneficial for FIND are:

1   In the evaluation of chest radiographs and ultrasound images and videos for the diagnosis of high burden respiratory diseases
1   In the use of AI based ultrasound imaging interpretation to improve pre-natal care.
1   The use of AI based software to improve interpretation of point of care diagnostic tests and clinical decision support at the primary health care setting.

Some key areas and use cases where NLP tools would be beneficial for FIND are:

2   Automation of document retrieval and extraction of key data points by topic of interest, building customised human in the loop pipelines.
2   Automatic web scraping of news sources relevant to diagnostic R&D to develop an internal curated news feed.
2   Monitoring of prospective donors and funding opportunities to support resource mobilisation (RM).
2   Creation of custom language models for automated content creation for key areas and processes (clinical protocols, legal documentation etc.).
2   Extraction of insights from large volumes of data for business intelligence (BI).

ELIGIBILITY CRITERIA OF EOI

Eligible candidates will be assessed on the below characteristics:

Skillset required:

1 Master's degree or above in computer science or related stream, or equivalent experience.
1 Strong working knowledge of AWS Engineering, Linux system administration and shell scripting.
1 Conceptual grasp of on-premise and cloud infrastructure encompassing virtual machines, containers, storage and networking technologies
1 Proficiency with creating and debugging automation scripts in R, python with additional competence in high-level languages.

2 Proficiency in coding languages including R and python
2 Strong foundation in Machine Learning and Deep Learning concepts.
2 Experience with NLP libraries and frameworks like NLTK, spaCy, and Transformers.
2 Knowledge of data preprocessing techniques for text data.
2 Ability to design and evaluate NLP models for various tasks including text classification, named entity recognition, and language translation.

Experience required:

1 Over 10 years of software engineering/product experience, demonstrating extensive leadership in guiding teams and driving product development.
1 Experience in developing and executing strategic plans, including those involving AI technologies, and ensuring compliance with sensitive data policy and regulation.
1 Minimum 5 years specializing in AI product development implementation, validation, or similar role, preferably in healthcare-technology.
1 Experienced in deploying healthcare technology solutions in both public and private sectors of low and middle-income countries (LMICs), with a focus on global high burden diseases.
1 Proficient in relationship development and partner management with external stakeholders, including interfacing with government officials, technologists, and other key stakeholders.
1 Exceptional written and verbal communication skills, adept at collaborating across multiple departments/disciplines/geographies in a matrix organization.
1 Strong project management skills with meticulous attention to detail, capable of managing complex multi-stakeholder projects.
1 Demonstrated expertise in architecting data systems and navigating data policy and regulations in diverse regulatory environments.
1 Track record with recruiting and leading engineering teams, and effectively managing software vendors.

2   Minimum of 5 years of hands-on experience in NLP projects.
2   Proven track record of delivering NLP solutions that drive business outcomes.
2   Experience working with industry-standard NLP tools and technologies.
2   Strong communication and collaboration skills to work effectively in a team environment.
2   Previous experience with international or global health organisations a plus.

BENEFITS TO APPLICANTS

We encourage submissions for applications who qualifications align with one or both EOI's skillset and experience expectations. Submissions from applicants will be used to populate a database of qualified consultants for FIND. When the need arises for future projects, the eligible applicants will automatically be included in the selection process.

CONFIDENTIALITY

FIND acknowledges that the information received from Applicants under the EOI may be of a confidential nature. FIND shall use the same degree of care with Applicant's confidential information as it uses to protect its own confidential information. If required, FIND can sign a CDA with interested Applicants prior to proposal submission. FIND will communicate the confidential information only to its employees, independent contractors, institutional donors and other financial sponsors, legal, financial, scientific or technical advisors (together "Representatives") who: (a) need to know such confidential information for FIND's internal purposes, and (b) such Representative has previously agreed in writing to be bound by terms and conditions substantially similar to those contained in this EOI, including but not limited to confidentiality and non-use restrictions. Review of proposals will be carried out by an internal FIND team as well as a team of external experts (which may or may not include members of FIND's independent Scientific Advisory Committee), all of whom are under confidentiality and are recused if found to have a potential conflict of interest (which they are obliged to disclose). Any specific questions concerning confidentiality should be addressed to the FIND team.

HOW TO APPLY

To express your interest in the roles outlined above, please follow these steps:

1. Submission: Send your application via email to digitalhealth@finddx.org.

2. **Required Documents:**
* A cover letter detailing your qualifications and interest in the role(s).
* An updated resume/CV highlighting relevant experience.
* Any additional materials that support your application (e.g., references, portfolio, certifications).

3. Deadline for submission
12 October 2024.

FIND ▸▸
Diagnosis for all

3. Position Specification
Clearly state in your cover letter whether you are applying for Role 1, Role 2, or both. If applying for both roles, please specify your preference order. This will help us match your skills and interests with the most suitable opportunities.

4. Email Subject Line
Use the subject line "[Your Name] - Application for [Role 1/Role 2/Both Roles]" to ensure your application is directed to the appropriate team.

Applications are reviewed on a rolling basis. Early submissions are encouraged to ensure timely consideration for upcoming projects. We look forward to your application and thank you for your interest in supporting FIND's mission.