**CONSULTANCY - TERMS OF REFERENCE**

**Data Science/AI Mentor**

*Division: UNICEF Office of Innovation, Stockholm, Sweden*

*Duration: 11 months*

*Duty Station: Remote*

**Advertising summary**

The UNICEF Venture Fund is looking for a data scientist to provide technical expertise to the Fund’s early-stage investments in emerging technologies involving artificial intelligence and data science (AI/DS). This role will also support the Fund in building related prototypes to increase the Fund’s efficiencies and to explore AI-based functionality for existing digital public goods.

**Child Safeguarding**

Is this project/assignment considered as “Elevated Risk Role” from a child safeguarding perspective? ☐ YES ☐ NO

If YES, check all that apply:

**Direct contact role** ☐ YES ☐ NO

If yes, please indicate the number of hours/months of direct interpersonal contact with children, or work in their immediately physical proximity, with limited supervision by a more senior member of personnel:



**Child data role** ☐ YES ☐ NO

If yes, please indicate the number of hours/months of manipulating or transmitting personal-identifiable information of children (name, national ID, location data, photos):



**More information is available in the** [Child Safeguarding SharePoint](https://unicef.sharepoint.com/sites/DHR-ChildSafeguarding/SitePages/Amendments-to-the-Recruitment-Guidance.aspx) and [Child Safeguarding FAQs and Updates](https://unicef.sharepoint.com/sites/DHR-ChildSafeguarding/DocumentLibrary1/Child%20Safeguarding%20FAQs%20and%20Updates%20Dec%202020.pdf)

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UNICEF works in some of the world’s toughest places, to reach the world’s most disadvantaged children. To save their lives. To defend their rights. To help them fulfill their potential.

Across 190 countries and territories, we work for every child, everywhere, every day, to build a better world for everyone.

And we never give up.

**For every child...innovate**

UNICEF has a 70-year history of innovating for children. We believe that new approaches, partnerships, and technologies that support realizing children’s rights are critical to improving their lives.

The **Office of Innovation** is a creative, interactive, and agile team in UNICEF. We sit at a unique intersection, where an organization that works on huge global issues meets the start-up thinking, the technology, and the partners that turn this energy into scalable solutions.

UNICEF's Office of Innovation creates opportunities for the world's children by focusing on where new markets can meet their vital needs. We do this by:

* Connecting youth communities (or more broadly -- anyone disconnected or under-served) to decision-makers, and to each other, to deliver informed, relevant, and sustained programmes that build better, stronger futures for children.
* Provoking change for children through an entrepreneurial approach -- in a traditionally risk averse field -- to harness rapidly moving innovations and apply them to serve the needs of all children.
* Creating new models of partnership that leverage core business values across the public, private and academic sectors to deliver fast, and lasting results for children.

The Office of Innovation specifically looks to form **partnerships around frontier technologies** (like drones and UAVs, blockchain, 21st century skills, urban technologies, new banking tools, wearables and sensors, or 3D-Printing) that exist at the intersection of $100 billion business markets and 1 billion person needs – and to identify how they can grow and scale profitably and inclusively.

**Our team**

We're an interdisciplinary team around the world tasked with identifying, prototyping, and scaling new technologies and practices. With our partners, we focus on convening and collaborating on new and different solutions, low- and high-tech, by:

* **Looking** at the 2–5-year horizon to evaluate emerging and trending technologies and to see how UNICEF can work with the private sector on doing better business while improving essential services for children.
* **Investing** in early-stage solutions that show great potential to positively impact children in the 02-year future including the Venture Fund that invests in open source technology solutions from start-ups based in UNICEF’s programme countries;
* **Identifying** proven solutions that can be implemented at national scale in multiple countries – taking the ideas that help thousands in one country, bringing them to dozens of countries across multiple sectors, and impacting the lives of millions of children.”

**How can you make a difference?**

The UNICEF Venture Fund is looking for a seasoned data scientist to provide technical expertise to the Fund’s early stage and growth investments in data science and artificial intelligence. This part-time, remote role will also support the Fund companies in building their prototypes by meeting with the companies and helping them assess where they might be gaps, developing a roadmap for support over their investment period, and connecting them with resources to unblock challenges as they occur. This role would also propose ways in which the Venture Fund Team can leverage DS/AI internally to improve efficiency of the overall functions of the fund.

**Your main responsibilities will be:**

* Provide technical assistance to Venture Fund companies with DS and AI solutions (start-up and country office) including:
	+ Mentor companies 1:1 and provide them with technical advice through monthly calls and remote sprints.
	+ Develop and maintain standards for quality documentation and work with UNICEF Venture Fund companies to ensure code is clearly documented and uploaded onto agreed upon Github repositories.
	+ Support the Venture Fund in reviewing Data Science and Artificial Intelligence portfolio company repositories and validating they are in line with contractual requirements.
	+ Develop technical resources and tools based on technical needs
	+ Provide technical support for Data Science and Artificial Intelligence call for submissions, reviewing submissions to UNICEF Innovation Fund

**Description of assignment**

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|   | **1**  | **2**  | **3**  | **4**  | **5**  | **6**  | **7**  | **8**  | **9**  | **10**  | **11**  |
| **Objective/Deliverable**  |   |   |   |   |   |   |   |   |   |   |   |
| **Provide AI/DS technical guidance and expert advice for Venture Fund sourcing and selection process.**  |
| **Activity**: Participate in helping to shape new calls for submissions, contributing AI/DS expertise.  Deliverable: Update notes in Venture Fund sourcing documents.   |   |   |   |   |   |   |   |   |   |   |   |
| **Activity**: Review company submissions at the expression of interest and request for proposal stage for Venture Fund calls for submission.   Deliverable: Update notes in Venture Fund sourcing documents.  |   |   |   |   |   |   |   |   |   |   |   |
| **Activity**: Join technical calls with companies to assess AI/DS aspects of proposals.   Deliverable: Attend calls with shortlisted companies integrating AI/DS into their proposal.   |   |   |   |   |   |   |   |   |   |   |   |
| **Activity**: Share feedback on finalist companies' workplans as the milestones relate to AI/DS.   Deliverable: Update notes in Venture Fund sourcing documents.   |   |   |   |   |   |   |   |   |   |   |   |
| **Provide technical assistance to UNICEF Venture Fund companies during investment period, including companies receiving seed, bridge, and acceleration funding**  |
| **Activity**: Review company workplans, code repositories, product functionality and make strategic recommendations to guide ongoing technical assistance   Deliverable: Provide written feedback to companies, including recordings of sessions; Update notes in cohort-specific folders, and AI/DS Mentor folder on Sharepoint.   |   |   |   |   |   |   |   |   |   |   |   |
| **Activity:** Conduct mentoring sessions with AI/DS companies in a monthly basis to track progress and provide guidance.   Deliverable: Provide written feedback to companies, including recordings of sessions; Update notes and summary in each cohort mentorship tracker.  |   |   |   |   |   |   |   |   |   |   |   |
| **Activity:** Design and structure technical workshop for cohort workshops as relevant  Deliverable: Host workshop; upload relevant documents in mentor's SharePoint folder.  |   |   |   |   |   |   |   |   |   |   |   |
| **Activity:** Advise on revisions needed to technical assessment survey sent to companies at beginning of investment period.   Deliverable: Update recommendations in AI/DS Mentor folder on Sharepoint.   |   |   |   |   |   |   |   |   |   |   |   |
| **Activity:** Participate in final evaluation of Venture Fund investments at the conclusion of the investment period, verifying AI/DS milestones have been met and participating in Graduation conversations with company.   Deliverable: Share notes related to each company in relevant cohort folder; advise (in written and/or oral form) the relevant Portfolio Strategist on company performance; attend Graduation calls.   |   |   |   |   |   |   |   |   |   |   |   |
| **Activity:** Participate in Venture Fund + Mentor monthly roundtables to identify strategic avenues to support the companies   Deliverable: Attend and participate in monthly meetings  |   |   |   |   |   |   |   |   |   |   |   |
| **Develop, maintain, and update AI/DS toolkit to support ongoing technical assistance with companies**  |
| **Activity:** Contribute new content and maintain existing content in the UNICEF AI and Data Science Toolkit  Deliverable: Robust and updated AI/DS toolkit that can be scaled across the Venture Fund.   |   |   |   |   |   |   |   |   |   |   |   |
| **Provide technical guidance to the Venture Fund team, as well as country offices**  |
| **Activity:** Based on existing platforms, projects, and future projects in the Venture Fund team, recommend strategies to streamline various technical procedures related to AI/DS.  Deliverable: Updates, notes and summary saved in the mentor's SharePoint folder.   |   |   |   |   |   |   |   |   |   |   |   |
| **Activity:** Provide technical support, as needed, to Country Office submissions where AI/DS input is needed.   Deliverable: Updates, notes and summary saved in the mentor's SharePoint folder.Participate in relevant meetings; provide advisory input in written and/or oral form.  |   |   |   |   |   |   |   |   |   |   |   |
| **Payment Schedule: Invoicing # sessions\* monthly**   | **Up to 7 sessions**  | **Up to 7 sessions**  | **Up to 7 sessions**  | **Up to 7 sessions**  | **Up to 7 sessions**  | **Up to 7 sessions**  | **Up to 7 sessions**  | **Up to 7 sessions**  | **Up to 7 sessions**  | **Up to 7 sessions**  | **Up to 7 sessions**  |
|  All activities and deliverables to be calculated as part of the AI/DS Expert session. 1 session = 8 hours. Consultant must keep track of sessions per month and may invoice up to the maximum listed in the payment schedule above. The maximum # of sessions for invoicing are 77.  |

**To qualify as an advocate for every child you will have…**

* Advanced degree in Computer Science, Data Science/Machine Learning, or related technical discipline. \*A first University Degree in a relevant field combined with 2 additional years of professional experience may be accepted in lieu of an Advanced University Degree.
* Five years of Data Science/Machine Learning experience
* Experience with Big Data analysis (NLP, Network Analysis, ...) and applying it to solving real-world problems
* Experience with professional software engineering practices and best practices for the full software development/AI life cycle, specifically:
* Strong coding capabilities in Python or R and Data Science related libraries (e.g., SciKit-Learn, Tensorflow...)
* Experience with analytics & visualization tools (open viz libraries e.g., Shiny, flexdashboard or equivalent for R or Dash, Panel or equivalent for Python)
* Git and other open-source software development tools
* Experience with cloud computing platforms such as GCP, AWS, Azure, or others
* A track record of mentoring projects / startups
* A solid knowledge of responsible AI/DS practices and frameworks
* Ability to communicate complex concepts in a clear and effective manner.
* Experience with rapid prototyping and evaluation of user feedback, and breaking down large features into a series of smaller, usable deliverables
* Experience with open-source technologies
* Strong written and verbal communication skills, excellent technical communication with peers and non-technical stakeholders
* Developing country work experience and/or familiarity with emergency contexts is considered an asset.
* Desire to work in a highly collaborative environment is an asset
* Fluency in English is required. Knowledge of another official UN language (Arabic, Chinese, French, Russian or Spanish) or a local language is an asset.

**Travel:**

* No travel is anticipated for this post.

**Payment details and further considerations**

* Monthly payment based on # mentorship sessions conducted related to the agreed deliverables. Approved upon monthly review with supervisor. The maximum number of sessions that can be invoiced is 77.
* Consultant is responsible for his/her own health and travel insurance
* Consultant is eligible for standard DSA for all work-related travel

**How to apply:**

* Interested applicant is required to submit a financial proposal with all-inclusive fee.
* Financial proposal must include travel costs (economy class) and daily subsistence allowance, if travel is required as per TOR and any other estimated costs: visa, travel/health insurance. *No travel is anticipated for the Software Development mentor role.*
* **Applications without a financial proposal will not be considered.**

**For every Child, you demonstrate…**

UNICEF's values of Care, Respect, Integrity, Trust, Accountability, and Sustainability ([CRITAS](https://uni.cf/UNICEFValues)).

To view our competency framework, please visit [here](https://www.unicef.org/careers/media/1041/file/UNICEF%27s_Competency_Framework.pdf).

UNICEF is here to serve the world’s most disadvantaged children and our global workforce must reflect the diversity of those children. The UNICEF family is committed to include everyone, irrespective of their race/ethnicity, age, disability, gender identity, sexual orientation, religion, nationality, socio-economic background, or any other personal characteristic.

UNICEF offers reasonable accommodation for consultants/individual contractors with disabilities. This may include, for example, accessible software, travel assistance for missions or personal attendants. We encourage you to disclose your disability during your application in case you need reasonable accommodation during the selection process and afterwards in your assignment.

UNICEF has a zero-tolerance policy on conduct that is incompatible with the aims and objectives of the United Nations and UNICEF, including sexual exploitation and abuse, sexual harassment, abuse of authority and discrimination. UNICEF also adheres to strict child safeguarding principles. All selected candidates will be expected to adhere to these standards and principles and will therefore undergo rigorous reference and background checks. Background checks will include the verification of academic credential(s) and employment history. Selected candidates may be required to provide additional information to conduct a background check.

**Remarks:**

Only shortlisted candidates will be contacted and advance to the next stage of the selection process.

Individuals engaged under a consultancy or individual contract will not be considered “staff members” under the Staff Regulations and Rules of the United Nations and UNICEF’s policies and procedures and will not be entitled to benefits provided therein (such as leave entitlements and medical insurance coverage). Their conditions of service will be governed by their contract and the General Conditions of Contracts for the Services of Consultants and Individual Contractors. Consultants and individual contractors are responsible for determining their tax liabilities and for the payment of any taxes and/or duties, in accordance with local or other applicable laws.

The selected candidate is solely responsible to ensure that the visa (applicable) and health insurance required to perform the duties of the contract are valid for the entire period of the contract. Selected candidates are subject to confirmation of fully vaccinated status against SARS-CoV-2 (Covid-19) with a World Health Organization (WHO)-endorsed vaccine, which must be met prior to taking up the assignment. It does not apply to consultants who will work remotely and are not expected to work on or visit UNICEF premises, programme delivery locations, or directly interact with communities UNICEF works with, nor to travel to perform functions for UNICEF for the duration of their consultancy contracts.