

## CONSULTANCY - TERMS OF REFERENCE

# Software Developer (Front End)

UNICEF Office of Innovation - Giga, Barcelona, Spain

Duration: 12 months (Deliverable-Based)

Duty Station: Barcelona

### Advertising summary

UNICEF/[Giga](#) seeks an experienced, creative, and passionate Front end Software Developer to join Giga.

[Giga](#) is a joint initiative between UNICEF and ITU, with a specific goal to connect every school to internet, and every young person to information, opportunity and choice. To achieve this goal, we have been mapping schools' geolocations and their real-time internet quality, demographics and potential internet infrastructure around them across the globe. We have been doing this through products like [Project Connect](#), [Daily Check app](#), Machine learning for school detection and multiple data collaborations.

The Software Developer will work with a multidisciplinary team to lead the development of these diverse range of products that will help us achieve the ambitious goal of connecting every school, and every community to the Internet.

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### 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](#) and [Child Safeguarding FAQs and Updates](#)**

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.

### **About Giga**

Launched in 2019 as a joint initiative between UNICEF and ITU, **Giga** has set the ambitious goal to connect every school in the world to the internet. Half of the world's population has no regular access to the Internet. Millions of children leave school without any digital skills, making it much more difficult for them to thrive and contribute to local and global economies. This has created a digital divide between those who are connected and those who are not, a divide that has become even wider during the Covid-19 pandemic. UNICEF and ITU have therefore joined forces to create **Giga**, an initiative to connect every school in the world to the Internet and address this new form of inequality.

**Giga** focuses on connecting schools so that children and young people have access to information, opportunity, and choice. It also uses schools as anchor points for their surrounding communities: if you connect the school, you can also connect local businesses and services. This creates opportunities for service providers to generate revenue from paying users, making connectivity more sustainable. A 2021 report by the Economist Intelligence Unit found that a 10% increase in school connectivity can increase effective years of schooling by 0.6% and increase GDP per capita by 1.1%.

You can read more about Giga's work at <https://giga.global/> and by following us on twitter @Gigaglobal

### **How can you make a difference?**

The Software Developer will work with a multidisciplinary team to lead the development of these diverse range of products that will help us achieve the ambitious goal of connecting every school, and every community to the Internet.

### **Your main responsibilities will be:**

- Work closely with the Blockchain Product Manager and the UI/UX team, to create intuitive and responsive user interfaces for Giga's blockchain products, including NFT2, and GigaCounts, an open-source platform to manage school connectivity contracts globally.

- Coordinate the work of vendors and other software partners that are supporting us to build new products.
- Build new prototypes and tools that support the current Giga project, as well as scale features in existing ones.
- Ensure visual consistency of products by using design systems like IBM carbon design system.
- Collaborate with backend and blockchain engineers to ensure seamless integration and high performance of the applications.
- Create and maintain frontend documentation for the developed products.
- Contribute to product strategy from a frontend perspective and help in mentoring junior frontend developers.
- Work closely with other parts of the team (like the mapping and data science team) to explore collaboration and integration.

### Description of assignment

| Tasks |   | Deliverables/Outputs   | Delivery deadline | % of payment/<br>Estimated combined working days |
|-------|---|--|-------------------|--|
| 1     | <b>Collaborative UI Implementation for Giga's Blockchain Products</b> | <ul style="list-style-type: none"> <li>• Responsive web interfaces for GigaCounts, aligning with the IBM carbon design system</li> </ul>   | Month 1           | 8%   |
| 2     | <b>Coordination with Vendors and Partners</b>                         | <ul style="list-style-type: none"> <li>• Frontend components delivered by vendors for GigaCounts integrated</li> </ul>   | Month 2           | 10%  |
| 3     |   | <ul style="list-style-type: none"> <li>• Setup and conduct iterative reviews with software partners to ensure UI consistency and quality for Giga's blockchain products</li> </ul> | Month 3           | 8%   |
| 4     | <b>Prototyping and Feature Scaling</b>                                | <ul style="list-style-type: none"> <li>• Frontend prototypes for potential new features within NFT2</li> </ul>   | Month 4           | 8%   |
| 5     |   | <ul style="list-style-type: none"> <li>• Newly approved features implemented and scaled up into existing products</li> </ul>   | Month 5           | 8%   |
| 6     | <b>Consistency and Integration with Backend</b>                       | <ul style="list-style-type: none"> <li>• Ensure visual consistency across all products using the IBM carbon design system</li> </ul>   | Month 6           | 8%   |
| 7     |   | <ul style="list-style-type: none"> <li>• APIs and services for Giga's blockchain products integrated</li> </ul>  | Month 7           | 8%   |
| 8     | <b>Documentation and Strategy Contribution</b>                        | <ul style="list-style-type: none"> <li>• Document with frontend structures, components, and interactions for Giga's blockchain products</li> </ul>                                 | Month 8           | 8%   |
| 9     |   | <ul style="list-style-type: none"> <li>• Contribute to frontend strategies and optimizations in a technical capacity</li> </ul>  | Month 9           | 8%   |

|    |  |  |                 |            |
|----|--|--|-----------------|------------|
| 10 | <b>Collaboration, Mentorship, and Team Development</b> | <ul style="list-style-type: none"> <li>Collaborate with the mapping and data science team for integration of new data tools</li> </ul>                             | <b>Month 10</b> | <b>8%</b>  |
| 11 |  | <ul style="list-style-type: none"> <li>All frontend-related inputs consolidated and contribute to the overall engineering strategy and team development</li> </ul> | <b>Month 11</b> | <b>8%</b>  |
| 12 | <b>Completion of contract</b>                          | <ul style="list-style-type: none"> <li>Final handover report</li> </ul>  | <b>Month 12</b> | <b>10%</b> |

### To qualify as an advocate for every child you will have...

#### Qualifications:

- Master's degree in Computer Science, Web Development or a related technical field. *\*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.*
- A minimum of five (5) years of relevant professional experience in frontend software development
- Proficiency in JavaScript and front-end frameworks, with a preference for ReactJS
- Experience with CSS preprocessors like SASS or LESS and frontend build tools like Webpack
- Experience collaborating with designers and implementing UI/UX mockups and design libraries like IBM carbon design system.
- Experience in creating responsive designs for multiple devices and screen sizes.
- Familiarity with Headless CMS
- Experience with git, pull requests, and continuous integration through tools like Azure DevOps and Github
- Active contribution to the open-source tech community
- Experience in interacting with users and collecting user feedback on prototypes
- Familiarity with Agile development environments and practices.
- Ability to learn other coding languages as needed.
- Developing country work experience and/or familiarity with emergency conditions is considered 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.

#### Payment details and further considerations

- Payment of professional fees will be based on the submission of agreed deliverables. UNICEF reserves the right to withhold payment in case the deliverables submitted are not up to the required standard or in case of delays in submitting the deliverables on the part of the consultant.
- Consultant is responsible for his/her own health and travel insurance
- Consultant is responsible to arrange his/her own travel, including visa

### How to apply:

- Interested applicants are required to submit a financial proposal with an all-inclusive fee. Please see the financial proposal template.
- 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
- **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](#)).

To view our competency framework, please visit [here](#).

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.