



**UNITED NATIONS CHILDREN'S FUND
JPO Request Form**



Training and Learning Plan

- ✓ Participation in a one-week JPO Induction Programme in New York.
- ✓ Guidance and advice in relation to training opportunities within the field of expertise.
- ✓ Use of yearly JPO training funds for internal/external training opportunities.
- ✓ Participation in the Mentoring, Coaching, and Career Counselling and Career transition programmes.
- ✓ Encourage field mission and/or stretch assignment during and after the 2nd year.

In addition, the JPO will benefit from the following specific learning opportunities in the receiving office:

- ✓ Collaborate from design to implementation on impactful frontier data technology projects with an agile regional and global team of data scientists, data engineers, software engineers, product, partnership, and community managers.
- ✓ Gain valuable industry experience in data wrangling complex heterogeneous datasets using Python and cloud-based data platforms such as Data Fabric and Data Bricks, while learning enterprise data management practices.
- ✓ Learn to build and deploy multi-layer geospatial data in enterprise GIS and spatial data science platforms such as ArcGIS and Carto.
- ✓ Work directly with the Latin American and Caribbean Regional Office (LACRO) as part of its Frontier Data Node, eliciting data and analytics requirements and use cases while helping to build a frontier data technology portfolio for UNICEF.

✓	The candidate will mature their data science and engineering skills, preparing them to enter international development or other sectors as a seasoned data analytics expert, whether with UNICEF, any of dozens of international development stakeholders, or in the private sector.
✓	The JPO will benefit from the coaching and development of a global, flat-hierarchy, experienced, agile team that prizes collaboration and pragmatic delivery.
✓	The direct local supervisor, Liliana Carvajal is a planning and monitoring specialist with deep field and global experience in delivering data and analytics in the service of child and maternal health. She is currently leading the Frontier Data Node at LACRO as it works to address data and analytics gaps especially for children on the move and other migration needs. The JPO will work closely with Liliana and her team as they continue to deliver on regional priority frontier data technology use cases.
✓	The direct global supervisor, Manuel Garcia-Herranz is the Data Scientist (Principal Researcher) on the team. He is a PhD Data Scientist with an extensive publication history, a large research network, and a 10+ year history of delivering impactful data science solutions in the service of international development across public health, education, migration, emergency and more. He has led young teams on a wide range of projects for several years. The JPO will receive strong technical data science guidance from Manuel and the entire Frontier Data Technology Unit that sustains the overall Frontier Data Network.

Information and living condition of Duty station:	
General Information	The JPO will be embedded at UNICEF's Latin America and Caribbean Regional Office (LACRO) in Panama City, Panama, as part of the Frontier Data Network's LACRO Frontier Data Node, with twice yearly team retreats with the HQ coordinating node, as well as frequent events at international conferences and workshops with Country Offices.
Security	Panama is a regional headquarters of UNICEF and is considered a family duty station.
Housing	Panama is a family duty station with a wide range of housing options.
Schools & Childcare	Panama is a family duty station which offers schooling options for children of international staff.
Work for spouses & partners	Spouses of UNICEF staff members shall be prioritized for UNICEF recruitment where they meet the requirements in accordance with the Staff Selection Policy.

Reporting line of the JPO
<p>Reports to:</p> <ul style="list-style-type: none"> - Liliana Carvajal, Planning and Monitoring Specialist -> Rada Noeva, Chief of Planning, LACRO - Manuel Garcia-Herranz, Principal Researcher -> Yves Jaques, Chief of Frontier Data Technology Unit, Data and Analytics Unit, DAPM



UNITED NATIONS CHILDREN'S FUND SPECIFIC JOB PROFILE

I. Post Information

Job Title: Data Science Officer
Supervisor Title/ Level: Data Scientist (Principal Researcher), P4
Organizational Unit: Frontier Data Technology Unit
Post Location: Panama City, Panama

Job Level: P2
Job Profile No.:
Job Classification Level:

II. Strategic Office Context and purpose for the job

Strategic office context:

Building a global community of practice – the Frontier Data Network (FDN) puts together data, talent and technology to integrate data technology advancements into humanitarian efforts, building UNICEF capacity to use the data and analytics that drive emergency, humanitarian, and programme planning.

To ensure that frontier technologies, platforms and data have a tangible impact on the ground, it is crucial to have the necessary capacity, talent and an actionable community of practice. To achieve this, FDN fosters connections with UNICEF's country and regional offices, helping to establish local capacity and actionable nodes in regional offices that consist of a mix of data scientists, engineers, and project managers.

FDN currently has active nodes at varying states of maturity at HQ and in three UNICEF regional offices: East Asia Pacific, West Central Africa, and Latin America Caribbean. These nodes are vital to creating sustainable, reproducible frontier data technology projects that help UNICEF push the boundaries on how it uses data technology to deliver impacts for children. Recent projects include using AI to identify mental health issues among adolescents, dynamically calculating the number of children in conflict worldwide at subnational level and identifying zero-dose children who have never received a vaccine. The team has also been instrumental in UNICEF's emergency and humanitarian response in Ukraine and Gaza, mounting complex multi-layer spatial data analytics.

The JPO will help sustain and build data science capacity at the newest node in LACRO as we continue to identify priority use cases and build a frontier data technology portfolio for the region. Work in progress already includes exciting collaboration on near casting of extreme weather events, identifying climate change risk at sub national level, and migration monitoring.

Purpose for the job:

- 1) Purpose it serves: each Frontier Data Node in the network consists of a combination of data science, data engineering, and project management talent. This is supported by the coordinating node that helps to make big data and other frontier data assets available, and provides supporting technology infrastructure, and scientific/research guidance and validation. This JPO position will augment the current data science capacity at LACRO so that the node can deliver on its frontier data technology

portfolio, especially with respect to the current migration, climate, and weather use cases that are in progress.

- 2) **Accountability:** this position will be accountable for helping to deliver on frontier data technology use cases. The incumbent, with guidance from the LACRO team and the HQ coordinating team will be expected to use their data science and data engineering skills to help deliver on frontier data technology solutions ranging from spatial analytics to creation of machine learning models, AI prompt engineering, data pipeline creation and automation, and more.

III. Key functions, accountabilities and related duties/tasks:

Under direct supervision of the Principal Researcher of the Frontier Data Technology Unit the JPO will be responsible for the following key functions/accountabilities:

1. Frontier Data Technology Portfolio Management:

- In close collaboration with the Frontier Data Network and LACRO Frontier Data Node, identify and document priority frontier data technology use cases for the region.
- Conduct multiple missions to country offices to gather priority use cases.
- Help organize, facilitate and execute regular regional workshops to support the portfolio.

2. Frontier Data Technology Use Case Delivery:

- Assist in the execution of priority use cases within the Frontier Data Technology Portfolio.
- Manage the entire data lifecycle:
 - Onboard user cases into executable projects.
 - Manage and organize user stories into sprints and sprint reviews.
 - Deliver data and analytics products focused on:
 - Climate risk and resilience.
 - Migration monitoring and service delivery.
 - Near-casting and responding to extreme weather events.

3. Frontier Data Network Support:

- Strengthen the Frontier Data Network by delivering frontier data technology outputs.
- Wrangle heterogeneous datasets (APIs, databases, warehouses, flat files) into harmonized formats using scripted pipelines.
- Create spatial data and analytics using geospatial and data visualization platforms.
- Develop machine learning models and AI prompt engineering.
- Collaborate on research publications.
- Address region-specific use cases (climate risk, migration monitoring, extreme weather response).
- Support global Frontier Data Network needs, including spatial data and analytics for emergency and humanitarian crises.

IV. Impact of Results

The efficiency and efficacy of the incumbent in this role will significantly enhance UNICEF's capacity to harness frontier data technologies in addressing pressing humanitarian challenges in the Latin America and Caribbean region. By advancing the delivery of data-driven solutions, the Data Scientist will enable more precise identification of vulnerable populations, support proactive responses to crises such as extreme weather and migration, and foster sustainable development outcomes for children. Additionally, by

strengthening the Frontier Data Network's regional node, this role will contribute to building local capacity and fostering a culture of data innovation within UNICEF's country and regional offices. This, in turn, will improve the organization's ability to scale effective solutions across different contexts, driving measurable impacts for children and communities.

V. Competencies and level of proficiency required

Core Values attributes

- Care
- Respect
- Integrity
- Trust
- Accountability

Core competencies skills

- Demonstrates Self Awareness and Ethical Awareness
- Works Collaboratively with others
- Builds and Maintains Partnerships
- Innovates and Embraces Change
- Thinks and Acts Strategically
- Drives to achieve impactful results
- Manages ambiguity and complexity

VI. Recruitment Qualifications

Education:

A university degree in one of the following fields is required: **computer science, data science, software engineering, mathematics, physics, statistics, or a related field**

Experience:

A minimum of two years of professional experience in one or more of the following areas is required:

- Experience as a member of an agile software or data science team.
- Experience creating data and analytics dashboards
- Experience in one or more enterprise grade software languages, especially Python.
- Experience with data science, statistics, and analytics packages such as Numpy, Pandas, GeoPandas

Desirable:

- Experience with API and pipeline driven wrangling of big heterogenous data sets from databases, data warehouses, data lakes, etc. and file formats such as Parquet.
- Experience with spatial data science projects using analytics platforms such as Data Bricks together with mapping platforms such as Carto, MapBox, Kepler.gl

	<i>Relevant experience in a UN system agency or organization is considered as an asset.</i>
Language Requirements:	<i>Fluency in English is required. Knowledge of Spanish is considered an asset.</i>