

United Nations JPO Programme



TERMS OF REFERENCE 20P287

Junior Professional Officer (JPO)

I. General Information

Title: JPO in Data Science

Sector of Assignment:
Information Management / Data Analytics and Management

Organization/Office:
United Nations/ Department of Management Strategy, Policy and Compliance (DMSPC).
/ Business Transformation and Accountability Division (BTAD) / Analytics and Project Management Service /
Analytics Section

Duty Station:
New York, USA

[Non-Family Duty Station: yes / no

Duration:
1 year (with possible extension for another year)
[Extension of appointment is subject to yearly review concerning priorities, availability of funds, and satisfactory performance]

II. Supervision

Title of Supervisor:
Senior Management and Programme Analyst/ Senior Data Scientist

Content and methodology of supervision:
Establishment of a Work Plan: During the first month of the assignment, the Junior Professional Officer (JPO) will work jointly with his/her direct supervisor to finalize an agreed upon work plan. The final work plan will be discussed and mutually agreed to by the JPO and his/her supervisor.

Evaluation: The United Nations Performance Evaluation System (e-performance) will serve as a primary platform to evaluate the JPO's performance.

III. Duties, Responsibilities and Output Expectations

Within delegated authority, the JPO will be responsible for the following duties:

- Assists in the exploration, identification, and acquisition of data sources to determine their suitability for use in decision making and advancing the goals of the organization. Enables broader use of data sources by



- applying quality methods to structure, clean, format, parse, and standardize for analytical use.
- Establishes a close working relationship with key clients to leverage the use of data science methods to support their programmatic areas with solutions that assist them in accomplishing their mandates.
- Contributes to the design and develops data science products to reveal insights and provides an understanding or knowledge of the data that would otherwise not be detected without the application of advanced analytical methods such as artificial intelligence, machine learning, predictive analytics, data and text mining, natural language processing, statistics, and use of relevant algorithms and computational approaches.
- Assists in promoting the use of data science solutions through client training and the development of products, tools and processes to extend the capabilities of client offices.
- Contributes to the design and develops customized visualization and presentation products to reveal the findings of analysis for clients, suitable for all forms of production to include briefings, reports, documentation to oversight bodies, interactive interfaces, and publication quality outputs.
- Guides, trains and supervises general service staff in the function.

Work implies frequent interaction with the following:

Data Science colleagues in the Analytics Section.

Clients within the division, in the secretariat or other parts of the UN System.

Results Expected:

Develops and delivers data science solutions to better enable the planning, decision making, and implementation of organization programmes. Through close relationships with clients, designs products that provide situational awareness, insight, and predictive assessment to guide programme management and execution. Contributes to identifying significant issues and opportunities to implement innovative approaches and evidence-based reasoning to complex organizational issues.

IV. Qualifications and Experience

Education:

Advanced university degree (Master’s degree or equivalent) in Data Science, Mathematics, Statistics, Engineering or any related field that includes intensified data analysis in the curriculum. A first-level degree in combination with two additional years of relevant work experience in data analytics or data science may be accepted in lieu of the advanced university degree.

Work experience:

A minimum of two years of relevant work experience in data science, data analytics, applied mathematics, information management or related area is required. Experience using data science tools such as Jupyter, Matlab, Knime, SPSS, SAS or similar Statistical Programming Languages such R, Python, Javascript or related is desirable.

Languages:

English and French are the working languages of the UN Secretariat. For this position, fluency in English is required. Knowledge of another UN official language is an advantage.

UN competencies:

PROFESSIONALISM: Knowledge of the data analysis life cycle from ingest and wrangling to analysis and visualization to present findings. Knowledge of statistical and computational methods, such as clustering, classification, correlation, dimension reduction, forecasting, machine learning, detecting outliers, and regression. Takes pride in the work for the organization and understands the impact that can be brought into the organization by allowing data-driven and evidence-based decisions. Shows pride in work and in achievements; Demonstrates professional competence and mastery of subject matter; Is conscientious and efficient in meeting commitments, observing deadlines and achieving results; Is motivated by professional rather than personal concerns; Shows persistence when faced with difficult problems or challenges; Remains calm in stressful situations; Takes responsibility for incorporating gender perspectives and ensuring the equal participation of women and men in all areas of work.



TEAMWORK: Works collaboratively with colleagues to achieve organizational goals; Solicits input by genuinely valuing others' ideas and expertise; is willing to learn from others; Places team agenda before personal agenda; Supports and acts in accordance with final group decision, even when such decisions may not entirely reflect own position; Shares credit for team accomplishments and accepts joint responsibility for team shortcomings

CLIENT ORIENTATION: Considers all those to whom services are provided to be "clients" and seeks to see things from clients' point of view; Establishes and maintains productive partnerships with clients by gaining their trust and respect; Identifies clients' needs and matches them to appropriate solutions; Monitors ongoing developments inside and outside the clients' environment to keep informed and anticipate problems; Keeps clients informed of progress or setbacks in projects; Meets timeline for delivery of products or services to client

CREATIVITY: Actively seeks to improve programmes or services; Offers new and different options to solve problems or meet client needs; Promotes and persuades others to consider new ideas; Takes calculated risks on new and unusual ideas; thinks "outside the box"; Takes an interest in new ideas and new ways of doing things; Is not bound by current thinking or traditional approaches

TECHNOLOGICAL AWARENESS: Keeps abreast of available technology; Understands applicability and limitations of technology to the work of the office; Actively seeks to apply technology to appropriate tasks; Shows willingness to learn new technology

Workforce Diversity

The United Nations believes that an inclusive culture attracts the best talent and encourages all qualified applicants, regardless of gender, disability, sexual orientation, cultural or religious backgrounds, to apply.

V. Learning Elements

On completion of the assignment, the JPO will be able to:

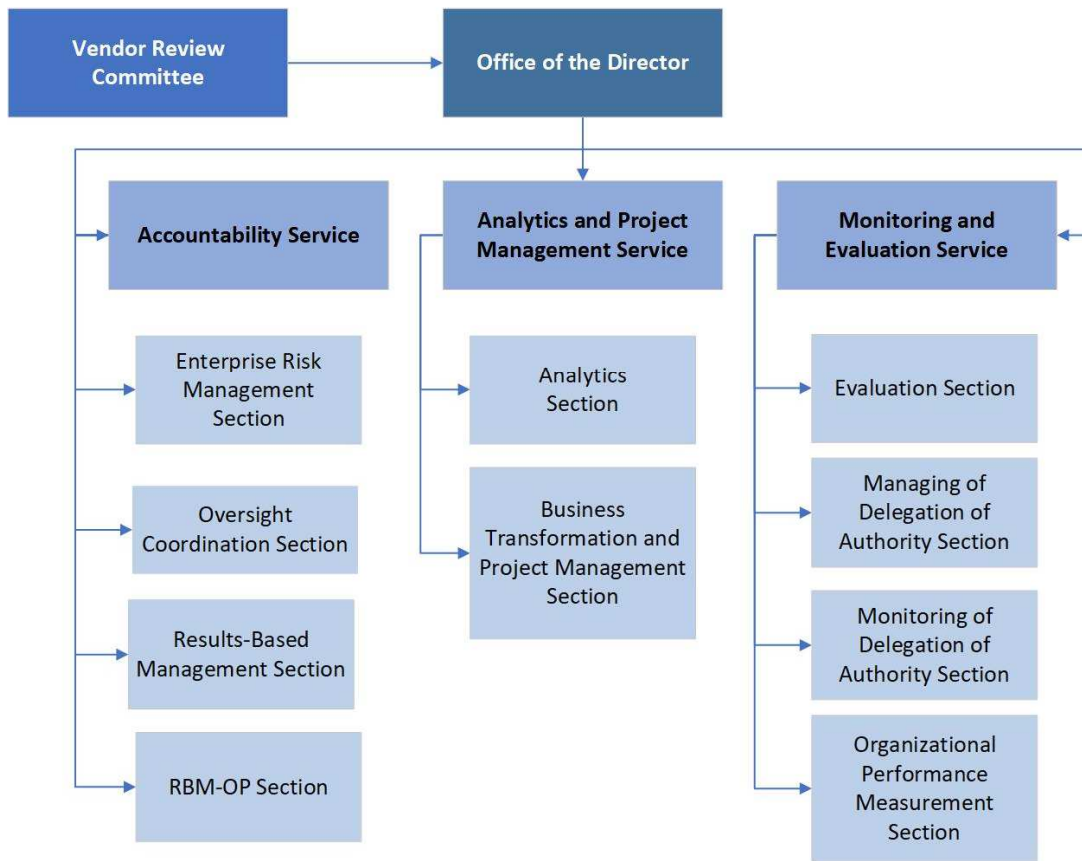
- Create data products independently
- Work on data related research related to international affairs and development
- Collaboratively work on large projects in a team
- Introduce new technologies and methods to an organization.

VI. Background Information

The Business Transformation and Accountability Division (BTAD) was introduced in January 2019 as part of the Secretary-General's Management Reform. The purpose of this division is to house, in one entity, for the first time, specialized capacity for all the functions dedicated to monitoring and strengthening performance and accountability. Central to BTAD is the delegation of authority framework which was introduced with the management reform, and other areas are working on topics such as Enterprise Risk Management, Results-based Management, Evaluation and other areas thematically grouped around Accountability. The Analytics and Project Management Service is an important organizational unit within BTAD which has a stronger focus on Innovation, Data Analytics and Project Management. Within the Analytics Section, we are developing innovative data products. Our data products aim to be innovative initiatives to find creative ways to use data to inform decision making, make predictions and identify innovative ways to better measure results.

Business Transformation and Accountability Division

DMSPC



- General outlines about the programme or project the JPO will be working in (history, recent developments concerning the programme/project):
Current products include analytics products around Natural Language Processing for surveys, an innovative analytics product for cash management and a visualization tool for the delegation of authority. We have also worked on the establishment of dashboards to monitor administrative Key Performance Indicators (KPIs).
- Outline about planned developments concerning the programme/project:
Future and current developments are a comprehensive data science training program and delivery platform as well as innovative approaches to further the measure of sustainable development goals (SDG's) and other relevant measurements in support of the Secretariat's mandates, including in the areas of development, peacekeeping and peacebuilding, humanitarian response and protection of human rights.