



LAITH ABU-NAWWAS

Data Engineer | Big Data Specialist | Data Architect
Data Analyst | Open Source Factchecker

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SUMMARY

Accomplished Data Engineer, Big Data Specialist and Data Analyst with expertise in designing and implementing data solutions to address real-world challenges and enhance business outcomes. A collaborative team player, highly motivated, and results-driven, dedicated to continuous learning and skill improvement. Holds a valid Swiss residency with work permit (B).

LANGUAGES

- **Arabic:** Native
- **English:** Proficient
- **French:** Beginner (B1)

SKILLS

Project Management:

- **Frameworks and methodologies:** Cross-Industry Standard Process for Data Mining (CRISP-DM), Scrum, Agile, Kanban, Result Based Management (RBM), Open Research.
- **Tools/Software:** Confluence, Jira, GitHub/GitLab, Redmine, Docker, Google Diagrams
- **Regulatory Knowledge:** General Data Protection Regulation (GDPR)

Technologies:

- **Data Processing:** R, Python (PySpark, NumPy, Pandas), Java
- **Data Analysis/Visualization Tools:** R, Python, IBM SPSS, JASP, STATA, PowerApps, PowerBI, Scikit-learn, Matplotlib

EXPERIENCE [+8 years]

Data Specialist – Automation 100% 06/2024 – 09/2024
IMPACT Initiatives HQ Geneva, CH

- Developed an R package for humanitarian risk assessment composite indicators, ensuring automated unit testing using dplyr, testthat, and Tidyverse packages.
- Built Python scripts for KoboToolbox survey templates, automating variable matching with Pandas, NumPy, and additional Python libraries.
- Drafted a proposal to adopt open research and open data infrastructure for IMPACT HQ's data strategy.

Data Manager – CDD 100% 10/2021 – 10/2023
Swiss Institute of Bioinformatics Lausanne, CH

- Designed and executed a comprehensive data management plan ensuring data quality, consistency, and compliance for a cross-European research project.
- Implemented data processing plans (cleaning, pre-processing, harmonization, transformation) and developed data governance procedures covering access, security, documentation, and warehousing.
- Led successful data collection from four cohorts across Europe (Switzerland, Spain, Germany) with over 6,400 participants.
- Exceeded expectations by acquiring all available features across various data domains including Metabolomics, Transcriptomics, and PET-CT.
- Contributed to the creation and development of RDF support for the BiomedIT SENSE node and onboarded multiple data managers to secure platforms for multicentric research projects. Including GraphDB Installation and Maintenance.
- Played a key role in the development and integration of the SPHN Quality Assurance tool and SPHN connector. Took the initiative to create detailed work instructions to guide research teams in conducting quality checks on the data.

Data Manager – CDI 100% 02/2020 – 10/2021
Centre Hospitalier Universitaire vaudois Lausanne, CH

- Provided IT support for clinicians and researchers, ensuring smooth data management and medical data platform use.

- **Big Data & Cloud Technologies:** Spark, Hadoop, AWS, Cloudera, Azure
- **Database Management:** PostgreSQL, RDF, GraphDB, Jena, RDFlib, QGIS, ArcGIS
- **Data Collection/Survey Tools:** Kobo Toolbox, Survey123, ODK, Redcap, Google Forms
- **Data Integration Tools:** KNIME, PowerApps, Azure Data Factory

EDUCATION & CERTIFICATES

- [Ongoing] | Azure Data Engineer |Online | *Microsoft*
- [Ongoing] | Data and Economics |Online | *MITx Online*
- [2023] | Big Data Specialization |Online | *UC San Diego Online*
- [2018] | ArcGIS Server Admin and Configuration
- [2015] | M.Master's in Business | Jordan | *Administration Boston College – Global Leadership Institute*
- [2014] Bachelor of Engineering | Jordan | *The Hashemite University*

ARTICLES & PUBLICATIONS

- Open Source Flight Tracker Data | Laith Abu-Nawwas (2024) | <https://www.linkedin.com/pulse/open-source-flight-tracker-data-laith-abu-nawwas-fp5ye/>
- Metadata Schema of Common Data Elements for Mental Health v5 | Karozos, K., Abu-Nawwas, L., Spartalis, I., & Vassalos, V. (2020). Metadata Schema of the Common Data Elements for Mental Health (v5) [Data set]. EBRAINS. <https://doi.org/10.25493/M5VB-6D1>
- Metadata Schema of the Common Data Elements for Dementia v3 | Karozos, K., Abu-Nawwas, L., Spartalis, I., & Vassalos, V. (2020). Metadata Schema of the Common Data Elements for Dementia (v3) [Data set]. EBRAINS. <https://doi.org/10.25493/GCFG-2MW>
- Metadata Schema of Common Data Elements for Traumatic Brain Injury v5| Muraleedharan, V., Finazzi, S., Abu-Nawwas, L., George, P., Bertolini, G., Karozos, K., Spartalis, I., & Vassalos, V. (2020). Metadata Schema of Common Data Elements for Traumatic Brain Injury (v5) [Data set]. EBRAINS. <https://doi.org/10.25493/YBY9-QA>

- Identified, managed, and documented metadata, ensuring consistency and accuracy across research data.
- Conducted profiling and mapping of data to ensure comprehensive integration and use in research.
- Organized, tracked, and updated data models and Common Data Elements CDEs used in the Medical Informatics Platform (MIP), ensuring alignment with research objectives.
- Contributed to the development and enhancement of tools for managing data.
- Ensured effective communication and coherence between hospitals and other Human Brain Project platforms; provided training for clinicians and researchers at new hospitals and institutions on MIP usage.

Information Management Officer - 100% 08/2015 – 06/2019 UNICEF- The United Nations Children's Fund Amman, JOR

- Established the UNICEF Jordan ArcGIS portal by implementing Esri solutions to host geodata collected via Survey123, Collector for ArcGIS, ODK, and KoboToolbox surveys, supporting over 50 field workers. Conducted a situation analysis to produce vulnerability maps for water and sanitation in Jordan (2016-2018).
- Played a key role in supporting the implementation of data-driven result-based management for the USD 500+ million WASH sector response plan in Jordan (2017-2019, 2022).
- Led the development of a mobile app for water leakage monitoring, overcoming API-sharing challenges with innovative solutions.
- Provided comprehensive technical support for projects related to water and wastewater management, vulnerability analysis, and sectoral reporting.
- Successfully coordinated with a broad range of stakeholders, including government bodies, donors, UN agencies, and NGOs, ensuring effective collaboration.
- Led and mentored team members and external partners, focusing on capacity building and ensuring high-quality outputs.
- Improved data quality, project monitoring, and stakeholder reporting processes, contributing to more efficient project implementation.
- Recognized for providing innovative solutions and setting high standards for information management across various sectors.
- Conducted a national high-level risk assessment of Jordan's water and sanitation sector, collecting and analysing hazard data across 12 Jordanian governorates.