

Work Experience

Quant Data and Analytics

Riyadh

Senior Data Engineer

Mar 2021 — Present

- **Designed, developed, and implemented** end-to-end ETL workflows within Alteryx, that scrape, aggregate, and parse data from diverse sources and APIs. Transformed raw data into structured formats conducive to efficient storage and retrieval within database systems, enhancing data accessibility and usability for analytical purposes
- **Maintained and optimized** ETL workflows, ensuring ongoing data integrity, performance efficiency, and alignment with evolving business needs. Regularly monitored, updated, and improved existing ETL processes to sustain optimal functionality and reliability of data pipelines
- **Revamped and fine-tuned** workflows, achieving a minimum 50% enhancement in data ingestion speed through strategic refactoring and optimization initiatives. These improvements streamlined processes, expediting data ingestion while maintaining data integrity and system reliability.
- **Created and deployed** customized Python scripts aimed at addressing intricate data structure complexities, streamlining data organization and transformation processes effectively
- **Developed** a customized proxy server to anonymize requests to APIs, ensuring added security while collecting data. This solution also facilitated access to specific APIs, enhancing our data collection capabilities while maintaining confidentiality and bolstering security measures.
- **Led** the design, implementation, and ongoing management of PostgreSQL databases. Directed user access and permissions, actively managing user roles and privileges within the database environment to ensure robust data security and integrity
- **Facilitated** the training and onboarding of new team members through hands-on guidance and knowledge-sharing sessions. Provided personalized support to ensure a seamless transition, enabling quick integration and effective contributions to project tasks.

Skills

DevOps & Tools Alteryx, QGIS, Squid-cache, Airflow, Regex, Azure, Git, Unix, Docker

Frameworks & Libraries Flask, Pandas, GeoPandas, NumPy, PyQGIS, Qt, Playwright

Programming Python, Java, SQL, JavaScript, HTML, CSS

Languages English (Fluent), Arabic (Native)

Projects

QGIS YXDB Importer (WIP)

Python, QGIS, Qt

- QGIS Plugin to read YXDB files (.yxdb) formats directly into QGIS
- Uses **PyQGIS API** to access QGIS interface and GUI elements
- Uses **Qt** library to develop a GUI interface for the plugin
- Provides quick access to export options formats such as Geodatabase or Shapefile
- Eliminates the drawback of converting to Shapefiles that generates 5 additional metadata files

ANTLR4 Compiler

🔗/ANTLR4Compiler

Java, ANTLR4, MIT Alloy Analyzer

- ANTLR4-based compiler that compiles user-defined regular language to predicate logic that Alloy uses to prove correctness
- **Lead** team & communication by proposing plans, managing deadlines, assigning tasks and ensuring team members are motivated and comfortable
- **Lead** language design by proposing a simple and efficient regular language to simplify user interaction and processing work

Soccer Twitter Sentiment Analyzer

🔗/SoccerTwitter-Sentiment

Python, Pandas, NumPy, Twitter API

- Analyzes fan sentiment on Twitter for soccer teams during games to predict fan cheering moments, highlight moments, favorite players and controversial moments
- **Lead** and **designed** data flow and data format throughout the project to help the team work smoothly
- **Handled** real-time data streaming from Twitter API using Python with additional data cleaning to store as CSV sheets
- **Identified** the limitations of the Twitter real-time API and communicated with the team to suggest solutions

Education

Lassonde School of Engineering, York University

Toronto, Canada

Honours Bachelor of Science, Computer Science

Sep 2017 — May 2020

Databases, Data Mining, Big Data Systems, Software Design, Algorithm Design and Analysis, Operating Systems, Data Structures, Object-Oriented Programming, Compilers