

## ADRIAN NG

Junior Metadata Engineer at IAG Cargo

**Email:** adrian.j.ng@gmail.com **Website:** adrian.ng **Location:** Harrow

### DATA SCIENCE & ANALYTICS

### MECHANICAL ENGINEERING

### TRAINING

**Royal Holloway**  
*MSc.*

2017  
Distinction

**King's College London**  
*BEng.*

2010  
2:1

Functional Programming Principles in Scala  
**EPFL** in progress

## IAG CARGO

*Junior Metadata Engineer*

*Data Platform Team*

*June 2019 - Present*

**Prototype  
Implementation**  
PL/SQL

- Implemented data processes originally prototyped by Data Exploitation team in *Alteryx/ Tableau*
- Achieved efficiencies where possible:
    - Computed *directed network graphs* with set-based iteration (**CROSS JOIN**, inline recursion)
    - Cached remote/computationally expensive datasets in *global temp tables*, *materialized views*
    - Utilized PL/SQL like a functional language with table-valued functions.
  - Established standards for Data Exploitation prototypes to follow (documentation, UAT evidence)

**Self-Service  
Pipeline Creation**  
Python, Powershell

- Built an automated service enabling Data Exploitation team to set up their own data pipelines.
- Adopting **yaml** for user-friendly configuration resulted in utilization across multiple projects
  - Underlying code (Python, Powershell) made use of object-oriented patterns and practices
  - Used time-series analysis (differencing) to visualize unusually large/small imports (*Tableau*)
  - Clear documentation (installation, configuration) led to continued use throughout Lockdown

**Sales Relational  
Model**  
Oracle

- Modelled the relationships between entities: sales agent/customer/location
- Relational design resulted in efficient ETL, constant uptime, and immediate retrieval
  - Co-opted *Sharepoint* as ETL interface, facilitating data ownership for non-technical stakeholders

**Training**

Prepared training materials and hosted workshops (SQL fundamentals, Markdown)

**Data Glossary**

Established editorial guidelines for internal Wiki/Data Glossary. Interviewed others for content.

**Mentorship**

Mentored a colleague (*moving-ahead.org*). Listened to issues, asked questions. Provided guidance.

## MANCHESTER CITY FOOTBALL CLUB

*Data Analyst*

*Fan Relationship Management*

*Jan. - July 2018*

**New York City  
FC Integration**  
Project Owner

- Greenfield project integrating data from NYCFC into analytical warehouse over six months.
- Liaised with NYCFC stakeholders to evaluate business metadata
  - Established pipelines integrating data from multiple sources: (NYCFC, Ticketmaster, Salesforce)
  - Utilized *Data Cubes* at Tableau end-point to cache computation, shrink dataset, improve UX

**GDPR PII  
Obfuscation**  
Technical Lead

- Integrated new GDPR schema into existing datastores (*SQL Server*, *Salesforce*)
- Working with DBAs, advocated for indexable types and identity fields for customers
  - Made use of these objects to implement process for obfuscating and auditing customer PII

## CREATOR (NOW INSPIRED THINKING GROUP)

*Senior CRM Campaign Executive*

*SQL Development*

*Dec. 2013 - Sept. 2016*

**ETL Process  
for CRM  
Broadcasts**

Built a configurable ETL process to ingest (via **BULK INSERT**), transform into CRM segments, and load into broadcast service (*Lyrus*).

adrian.ng/SQL/recursion  
adrian.ng/openquery-xml

- capable of multiple file ingestion, gained time-savings over the *SQL Server* import wizard
- achieved efficient joining of local and remote tables, using dynamic SQL to embed **XML** in **OPENQUERY**
- implemented efficient regex parsing with recursive CTEs, mapping delimited strings to rows