Adrian Ng

Junior Metadata Engineer at IAG Cargo   **Email:** contact@adrian.ng **Website:** adrian.ng **Location:** Harrow

Data Science & Analytics		Mechanical Engineering		Training
Royal Holloway	2017	**King's College London**	2010	Functional Programming Principles in Scala
MSc.	Distinction	*BEng.*	2:1	**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.

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

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

- 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