Adrian Ng

Junior Metadata Engineer at IAG Cargo **Email:** adrian.j.ng@gmail.com **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 & Analytics*	*June 2019 - Present*

Prototype Implementation
PL/SQL

Implemented data processes originally prototyped by Data Exploitation team in *Alteryx/Tableau*

- Improved *Flight* prototype from day-long Alteryx workflow to 15 minute *SQL* process:
  - Computed *directed network graphs* with set-based iteration (`CROSS JOIN`, inline recursion)
  - Achieved a functional approach to returning sets by utilizing `record`, `table` types
  - Cached remote/computationally expensive datasets in *global temp tables*, *materialized views*
- Established standards for Data Exploitation prototypes to follow (documentation, UAT evidence)

Self-Service Pipeline Automation
Python
Powershell
YAML

Built a configurable ingestion service enabling Data Exploitation team to set up their own pipelines

- Adopted `YAML` for user-friendly configuration resulting in utilization across multiple projects
- Underlying code (Python, Powershell) made use of object-oriented patterns and practices
- Documentation/operational metadata facilitated continued use throughout Lockdown period
- Made use of `git` to simplify deployment to host machine

Sales Data Model
PL/SQL
Powershell

Developed a data model and ETL solution providing business stakeholders control over their data

- Made use of *snowflake* schema to model entity-relationships: account manager/customer/location
- Relational design resulted in efficient `MERGE`, constant uptime, and immediate retrieval
- Co-opted *Sharepoint* as user-friendly file system for ETL ingress with *Powershell* APIs (PnP)
- Generalized this project into aforementioned *Self-Service pipeline*

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
- Coached NYCFC analyst on *SQL Server* DDL & DML

GDPR Schema
Technical Lead

Per EU directive, implemented new GDPR schema into existing datastores (*SQL Server, Salesforce*)

- Working with DBAs, advocated for indexable types and identity fields for customers
- Made use of enhancements to implement process for hashing 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