Adrian Ng

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

Education

Royal Holloway	2017	**King's Collge London**	2010
Data Science & Analytics		*Mechanical Engineering*	

- Master of Science
- Pass with Distinction
- Department of Computer Science

- Bachelor of Engineering
- Upper Second Class with Honours
- School of Engineering

Coding

- T-SQL, PLSQL
- Powershell
- Python
- Java (postgrad)

Tools

- VS Code
- DBeaver
- Git
- Markdown

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 computational efficiencies where possible:
  - Computed *directed network graphs* using `CROSS JOIN` and recursive in-line queries.
  - Made use of *materialized views* and *global temp tables* to cache datasets
  - Utilized PL/SQL as a functional language with table-valued functions.
- Specified standards for Data Exploitation team to follow (documentation, UAT evidence, naming conventions, ownership)

Self-Service Data Ingestion
Python, Powershell

Built an automated data ingestion service enabling Data Analysts to set up their own data pipelines.

- Utilized by Data Exploitation team across numerous projects.
- Time-series analysis used to visualize undesirably large or small imports in Tableau.
- Provided documentation on: − local/remote(RDP) installation − `yaml` configuration

Sales Relational Model
Oracle

Modelled the relationship between entities: sales agent/customer/location

- Established pipeline between Business Managers (upserts) and Data Analysts (dashboards)
- Relational design enabled efficient ETL automation, constant uptime and immediate retrieval.

Training & Documentation
Markdown

- Prepared training materials and hosted workshops for analysts on SQL fundamentals
- Part of editorial committee to establish an internal Wiki. Conducted interviews for content.
- Produced documentation on edge-case and greenfield subject matter:
  - XML parsing in Oracle
  - SSHing to remote Python environment
  - Metadata Management (for non-technical C-level audience)

Manchester City Football Club

Data Analyst	*Fan Relationship Management*	*Jan. - July 2018*

NYCFC ETL
Project Owner

Integrated New York City FC data into our analytical warehouse. Six-month project covering data discovery, analysis, engineering. Multiple data sources were involved: • NYCFC • Ticketmaster • Salesforce • Major League Soccer

Data Pipeline
- built pipeline ingesting data from multiple databases, replacing *Informatica* solution
- achieved speed improvements using efficient DML & DDL (`OPENQUERY`, `MERGE`)

Data Cubes
Storing analytical datasets in *Data Cubes* achieved:
- up-stream computation of all drill-down/roll-up levels and `GROUP BY` permutations
- reduction in size of dataset, minimising bandwidth across distributed servers
- improved user-experience in *Tableau* front-end

Training
Dedicating time to training junior colleagues remotely in Manchester/New York
- organised weekly workshops teaching basic DML and advanced DDL

- developed additional material on my website to supplement these workshops
- aimed towards self-sufficiency in writing database queries/stored procedures

GDPR Pipeline
Technical Lead

- integrated new GDPR schema into existing datastores (*SQL*, *Salesforce*)
- provide schema specification to `SQL` developers, advocating for indexable data types
- built efficient `MERGE` process featuring relational database design
- implemented a process to wipe personalised data belonging to any non-consenting individual stored in our data-warehouse

Creator (now Inspired Thinking Group)

Senior CRM Campaign Executive   *SQL Development*   *Dec. 2013 - Sept. 2016*

I developed a number of `SQL` processes to transform customer data into CRM segments. On occasion, I took responsibility for resourcing and managing the team's workload in *Jira*.

Virgin Media Segmentation
adrian.ng/SQL/recursion
adrian.ng/openquery-xml

Built a flexible segmentation process able to accommodate the numerous VM mailings and myriad ad-hoc configurations.

- wrote a flexible import process to efficiently ingest millions of tuples distributed across multiple flat-files, gaining time-savings over the built-in import wizard
- achieved efficient joining of local and remote tables via use of `OPENQUERY`, `XML`, dynamic `SQL`
- implemented efficient regex parsing via recursion, producing a one-to-many tuple mapping