

# Adrian Ng, MSc.

Junior Metadata Engineer at IAG Cargo

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## PROFILE

*NB. I am **not** job-hunting. May this document simply serve to give you an idea of what I'm about professionally.*

I am a *Junior Metadata Engineer* at IAG Cargo, an airline based at Heathrow. I have just started my job here but I will be building data pipelines and working with big-data technologies.

Content to keep this section rather sparse for now...

- Adrian

## EDUCATION

**Royal Holloway** 2017  
*Data Science & Analytics*

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

**King's College London** 2010  
*Mechanical Engineering*

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

## LANGUAGES

- Java 8
- T-SQL

## SOFTWARE

- IntelliJ IDEA
- MS SQL Server
- VS Code
- Git
- Jira
- Maven
- WSL

## IAG CARGO

*Junior Metadata Engineer*

*Data Platform Team*

*June 2019 - Present*

- I have just started my job here. I probably won't be updating this section (publicly) for many years.

## MANCHESTER CITY FOOTBALL CLUB

*Data Analyst*

*Fan Relationship Management*

*Jan. - July 2018*

**NYCFC Data Integration**  
Project Owner

Integrated New York City FC data into our analytical warehouse. Six-month project involving 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

**Mentoring**

Dedicating time to mentoring 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

**Customer Churn Model**

Modelling MCFC/NYCFC customers' future propensity to churn via *logistic regression*.

- contributed to feature selection via: – data extraction – imputation – normalisation – R modelling
- researched alternate models (e.g. *Beta-Geometric/Beta-Bernoulli*), academic papers, R APIs

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

[adrian.ng/SQL/recursion](https://adrian.ng/SQL/recursion)

[adrian.ng/openquery-xml](https://adrian.ng/openquery-xml)

- 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

**Volkswagen Onboarding** Worked with .NET developers and project managers to on-board a new client.

- built and tested a new process for segmenting email *and* SMS from scratch
- provided schema specification to developers for data warehousing

**TUI Redesign** Collaborated with TUI to integrate a new, responsive design for *Thomson* and *First Choice* large deployment broadcasts (5M+ recipients)

- wrote **TCL** scripts for dynamic **HTML** merges and gained efficiencies by moving expensive operations upstream
- provided testing; gave feedback; managed expectations on technical feasibilities
- gained recognition with client and was awarded at the end of this three-month project