

TYLER DONALDSON

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Dual National: Irish/South African

A senior data scientist/data solutions specialist, with a broad range of international project experience across several industries, software suites and programming languages. An innovative and systemic thinker, with a flair for problem solving, strong leadership experience and an end-to-end technical knowledge.

Principal Consultant Data Scientist & Technical Director

MIMIR Data Science (MDS)
Apr 2018 – Present
Global

MDS is a collective of highly experienced consulting data scientists, focused on delivering industry leading data driven predictive solutions and expert consulting with minimal overheads and complete flexibility.

Technical Director

- Managing projects and engagements including business discovery, proposal drafting, project costing & management, solution architecture, stakeholder engagement and delivery.
- Ongoing management and training of MDS team

Principal Data Scientist

- Life Event modelling and IFRS9 and Non-Performing Entity analytics for a major Irish bank used to inform and reduce credit risk.
- Complex credit risk app migration to SAS Real-time Decision Manager for a large financial services provider; providing an agile platform for rapid business driven analytical development and addressing several legacy issues.
- Ongoing support and development of credit offerings back-end system in SAS Real-time Decision Manager for a centralised, rapidly evolving FSP that services several large retailers with a number of credit products; which has enabled the implementation of 17 analytical projects & process changes in just 7 months.
- Custom geo-spatial/temporal analyses in R Shiny which enabled business users with a visual tool to fully interrogate spatio-temporal home loan data.
- Complex, custom feature engineering, clustering and recommender engine for a global fast food chain; enabling store level cross-sell/up-sell as well as detailed customer/store profiling.
- Full business discovery workshop & real-time analytical platform design/setup for a major African telco using SAS technologies, on behalf of SAS, enabling real-time next-best-offer capabilities.

Principal Data Scientist & Analytical Solutions Specialist

OLSPP Analytics – retained consultant position
Jan 2012 – Present
Cape Town, South Africa

An award-winning Predictive Business Intelligence (PBI) company specialising in the design, development and deployment of unique, state-of-the-art predictive and analytical solutions. Founded in 1989, OLSPP has become a key player in PBI and has been awarded and continues to be a top IBM business partner in Sub-Saharan Africa.

Responsible for developing and maintaining a number of predictive analytics & machine learning solutions, products and ongoing relationships with stakeholders across a range of industries. A key decision maker and senior adviser in the business, responsible for several ongoing developments, including:

- Workforce Analytics - developed a cloud-based, end-to-end workforce solution entailing complex relational DB design that allows for dynamic front end generation, integration, scoring, modelling, reporting and end-to-end analytics; providing detailed workforce insights to leadership and explaining as much as 40% of bottom-line performance,
- Analytical Solution Deployment - Designer and development lead of a lightweight, scalable analytical deployment platform (OLSOLV) that provides seamless integration, training and deployment of real-

time/batch predictive models, which can be operated by business users from a single web-based front end.

- End-to-end Solutions - Scoping, modelling, testing, integration and deployment of large, real-time, enterprise level, cross-platform solutions in both IBM and SAS software environments; for two major South African insurers.
- AI weather prediction - Imagined, designed, developed and built a unique, cloud based, self-learning micro-forecast algorithm in R that significantly increases forecast accuracy at an exact location. Field testing showed a robust 38.5% improvement in 36hr wind forecast accuracy compared to the next-best global forecast (WindGuru) for the given location, and nearly 100% improvement in next-hour accuracy.
- Publications - several data science related articles.
- Numerous other custom solutions across an array of software packages. For example:
 - A custom, highly constrained combinatorial optimiser in iLog
 - A custom sampling tool capable of co-stratified sampling under complex constraints in Excel/VBA
 - A custom opportunity based economics model that scales to run in parallel (R), for use in fisheries management decision making.
 - Churn modelling
 - Marketing optimisation
 - Customer segmentation
 - Fraud and crime detection
 - Complex, nested installer development
 - Web design and dashboard tools

Education

Bsc in Electro-Mechanical Engineering

University of Cape Town, South Africa (2012)

International Certifications

- SAS Marketing Automation
- SAS Marketing Optimisation
- SAS Real-Time Decision Manager
- SAS Enterprise Miner
- IBM Commerce Solutions Supply Chain Mgmt Sales Mastery
- IBM Optimization Technical Mastery
- IBM Certified Specialist - SPSS Modeler Professional v3
- IBM Websphere Operational Decision Management

Detailed Skills Matrix

- 1 - Appropriate training only
- 2 - Limited practical experience
- 3 - Solid practical experience
- 4 - Well versed, extensive experience
- 5 - Expert, extensive experience

SKILL	SKILL LEVEL	MONTHS EXPERIENCE
SERVICES:		
Analytical Applications	5	96
Application Architecture	4	65
Business Discovery	4	48
Business Process Analysis	3	52
Business Analysis (BI)	2	12
Creating Training Material	2	6
Dashboards	2	6
Data Analysis	5	96
Data Architecture	5	96
Data Conversion	5	96
Data Mining	5	96
Data Modelling	4	84
Data Profiling	5	96
Data Quality	5	96
Documentation	4	90
Enterprise App Integration	2	24
ETL Design / Development	5	90
Forecasting	3	12
Front End App Development (Web)	3	36
Implementation/RollOut	5	48
Information Exploitation	5	96
Large Volumes Data Processing	3	48

Management	2	36
Presenting Training	3	72
Project Administration	3	36
Psychometric Survey Optimisation	5	90
Solution Design	4	72
Survey Analytics	4	90
System Administration	2	36
System Architecture	4	36
System Integration	3	24
Team Leading	3	36
Technical Writing	5	84
Technical Testing	5	72
Web Design	3	60
TECHNOLOGIES:		
Cognos	2	12
Cognos Analytics	2	12
CSS	4	36
Excel	5	86
HTML	5	48
IBM Websphere	2	12
iLog Optimisation	2	6
Inno	4	24
Java	2	3
JSON	4	18
Jython	2	12
Knime	3	18
MatLab	4	12

Object / Relational Mapping	5	48
Object Oriented Analysis and Design	5	48
Oracle PL/SQL	4	24
PHP	3	24
Python	3	36
R	5	86
SAS RTDM	5	48
SAS Enterprise Guide	3	36
SAS Enterprise Miner	3	24
SOAP	4	36
SPSS Modeler	5	90
SPSS Statistics	5	90
SQL	5	90
Talend	3	6
VBScript	2	10
Vizard (Infruid)	4	6
WebSphere Application Server	2	12
XML	4	60
