

# Shane Whelan BSc, MSc, HDip

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## Career Profile

Data scientist experienced in Python and R programming and Big Data technologies in commercial environments. Passionate and motivated about the latest trends in data analytics. Experience building both data science and business intelligence applications. Focused to consistently achieve results and solve problems. Excellent interpersonal skills with a strong work ethic and always eager to learn and develop.

## Highlighted Skills

- Python development. Experience with functional and Object Oriented programming. Using statistical and machine learning libraries (ie. Numpy, Pandas, Scikit-learn etc). Building custom python packages and modules.
- R statistical and functional programming. Use of open source libraries. Tidyverse paradigm. R library creation.
- Experienced SQL developer (ie. MySQL, SQL Server and Postgres).
- Experience with a range of NoSQL databases (ie. MongoDB, Cassandra, Neo4j and Redis).
- Bash/Unix scripting. Windows and MacOSx.
- Automation and complex data extraction.
- Expert in data manipulation and extract transform load.
- Big Data technologies and cloud. AWS EC2 instances, Google computer engine.
- Git and Bitbucket source control and collaborative development in teams
- Business Intelligence reporting. Frontend and backend development in Tableau and Qlikview.
- Rshiny web framework, front-end customization and deployment.
- Javascript, HTML and CSS to customize data visualization in Rshiny and building webpages using Ruby and Jekyll to serve static web pages.
- Excellent interpersonal and teamwork. Inherent ability to achieve results on my own initiative.
- Time and project management (ie. Kanban boards, Trello and decision on priorities).
- Scrum Experience building prototypes and delivering presentations fortnightly.

## Relevant Career Experience

### Business Analyst / Data Scientist

#### Pacific Radiology Group, Wellington, , New Zealand

May 2017 - April 2018

- Finance team member with responsibility to provide regular, timely and accurate data/analytical information and reporting, including board reporting information, dashboards, performance monitoring, operational reports and ad-hoc requests.
- Preparing automated reporting solutions for key stakeholders.
- Represented the central point of co-ordination for all business units to support the optimal use of analytics, insights, reports and models to achieve their strategic goals.

## Key achievements

- Produced automated reports including payroll/operations reporting, including branch visit volumes, exams and diagnostic reporting volumes with the aim of using statistics to investigate how these difference arise.
- Integrated R and Python programming for data extraction, which was communicated/automated effectively via Tableau and Excel reports.
- Integrated and collected data from clinicians/administration via Google sheets API.
- Built a HR database and dashboard of all clinical and administrative staff (800+), which was especially important for calculating proposed remuneration plans and productivity.
- Worked on a cost-pricing model, involving ETL processes, removal of outliers and ensuring a high quality dataset. The information was then utilized in an Excel model that the Finance and operations teams could use to make decisions for pricing by modality.
- Automated contacting patients via email and text message in order to retrieve feedback and improve the diagnostic services offered, known as voice of the patient surveys.

- Prototyping a tool for radiologist to use to help them understand impacts on their reporting
- Frequently gave presentations at regional operations managers meetings.

## Data Scientist

### Xanadu Consultancy, Blackpool, Cork.

July 2014 - Mar 2017

- Created ETL processes for generating value and insights from unstructured website log data, which we performed analysis of once stored in NoSQL and cloud databases.
- Produced high quality BI reports in Qlikview for all areas of the business, including senior management, finance, fraud, marketing and customer service teams.
- Produced automated reports using python and R, including aggregated metrics and delivered to data consumers via automated emailing processes.
- Automated sending and populating Excel workbooks for business intelligence.
- Drove optimization and improvement of product development and marketing strategies.
- Moved to a scrum team as a product data scientist. Specifically I was working on an event driven architecture to help deliver a bonus engine and other data products.

### Key achievements

- Helped build an R library and python package for the data analytics team.
- Built numerous visualisation reports in Qlikview and RShiny. Also helped with backend Qlikview development to ensure the software was providing real time information.
- I built a prototype to produce price volume graphs, which was used by marketing team to drive customer engagement via sharing on social media. The app also provided metrics to inform marketing with info regarding most engaged and topical markets.
- Built Spark processes and worked on a migration of reports from MySQL to Cassandra.
- Automated bonuses to customers based on certain criteria on interactions on the website.
- CRM data tracking involving collecting information from Salesforce Marketing Clouds APIS into MongoDB and producing reports in Qlikview from this data.

## Other Career Experience

### Customer Service Representative

Sept 2010 – Sept 2011

FEXCO Financial Services, Killorglin, Co. Kerry.

### Pharmaceutical Production Operator

Summer 2008, 2009

Astellas Pharmaceutical, Killorglin, Co. Kerry.

### Customer Hardware Yard Worker

Summer 2006, 2007

Boyles and Sons Co. Ltd Killorglin, Co. Kerry.

## College Education

### Bachelor of Science (BSc) in Genetics.

Sept 2006 – June 2010

University College Cork (UCC). Second Class Honours Grade 1.

FYP in Bioinformatics: An investigation and classification of bacterial pseudogenes as a result of failed horizontal gene transfer events.

### Masters of Science (MSc) in Immunology and Global Health.

Sept 2011 – Sept 2012

National University of Ireland Maynooth (NUIM). Second Class Honours Grade 1 (68%).

Thesis: Construction of a genomic library of virulent e-coli strain HM-605 associated with Crohn's disease.

### Higher Diploma (HDip) in Data Science and Analytics

April 2013 – April 2014

Cork Institute of Technology (CIT). First Class Honours (75%).

Thesis: Sentiment analysis and opinion mining of twitter using a Naïve Bayes algorithm.

## Activities and interests

- Music, playing guitar and recording.
- Travel and life experience.
- Playing soccer and keeping active.
- Computer programming, Big Data and bioinformatics
- Friends and meeting new people.

## References

Please contact me and I will provide academic and professional references as necessary.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_