Rory P McCabe

MSc (Data Analytics)
BSc (Computer Science, Mathematics)

PROFILE

Accomplished and highly motivated Data Scientist and Senior Data Business Analyst with a successful track record in data manipulation and interrogation, programming, stakeholder management, ELT, end-to-end QA, metrics and statistics, visualization, teaching, code and document review.

20+ years' experience in academic, government, manufacturing and commercial multi-disciplinary teams focusing on CX, solutions management, RFI design, business strategy and planning, auditing, transition/change management, document control and network/user support.

Passionate about using data to benefit people.

INTERESTS

Astronomy: Member of the first Irish group to photograph and identify Halley's Comet. Taught in summer school and published articles on astronomy

Archæology: Attended extramural course on Archæology and visited major sites in Egypt, Turkey, Israel, Cyprus, Albania, Tunisia, Italy and China

CONTACT INFO

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"If you torture the data long enough, it will confess"
Ronald Coase

WORK EXPERIENCE

Ofgem

Head of Data Insight (Interim) & Senior Data Business Analyst 2018–Present

- Created new RFI for Retail Team and Python script to clean and aggregate data from 100 energy suppliers for analysis and visualization
- Advised Market Intelligence and Oversight group on governance of pseudonymization and ingestion of ultra-sensitive data for fraud analysis
- Assisted in development of open data standards policy for the energy market.
- Corrected source data and designed Power-BI business dashboard for multi-year switching standards dataset
- Designed metadata frameworks for business templates, scripts to apply them to existing Excel files and taught the economists how to run and maintain them
- Translated Price Cap data from embedded Excel functions to Python and SQL categorization
- Created and delivered Python and SQL courses to increase data awareness of the wider business community
- SME for ad hoc queries of the tariff dataset (740m+ rows)
- Designed multiple quick win solutions ranging from web scraping source data to financial visualizations
- Collaborated with data engineers in the creation and maintenance of Airflow pipelines
- Completed multiple career and skill tracks in DataCamp
- Helped to promote agile ways of working

Dell Inc UK

IT Site Lead / IT Op. Analyst III / Technical Analysis Advisor 2005–2016

 CCNA & ITIL qualified IT site lead and escalation point with twelve years' experience of site management and service transition, specializing

in metrics analysis and representing IT to the business

- Quantitative, qualitative and trend data analysis of regional and global Key Performance Indicators and customer satisfaction metrics
- Led the Glasgow Team to success to be continually in the top scoring sites in EMEA and globally for metrics and customer feedback
- Designed and presented European IT deck which passed external ISO9001 auditing
- Collated, analyzed and implemented server warranty refresh saving Dell over \$90K

Dell Ireland

Systems Analyst / NW Eng. Advisor

2000-2005

- Six Sigma and 3Com networking qualified member of LAN Team supporting 1000 + users
- Improved business processes in backup, asset management and security
- Assisted in designing network topology
- Technical writer and trainer

Python R SQL Power-BI Qlik SAS JAVA C++ Fortran COBOL LISP PASCAL Prolog

Applications: Confluence, Jira, Gitlab, Zeppelin, Jupyter, Airflow, Hive.

Libraries: Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, SQLAlchemy, Bokeh, BeautifulSoup, StatsModels, XGBoost, Plotly, Scipy.

Excellent communication skills both verbal and written. Management experience in multi-site and remote operations. Team leadership and employee welfare skills.

PROFESSIONAL DEVELOPMENT

CCNA ITIL 4 ISO9001 Auditing 6 Sigma 3Com

Multiple DataCamp Career & Skill Track Certificates

Lucent Technologies Systems Engineer 1998–2000

- Organized, administered and performed PC Y2K remediation project
- Provided end users services including request management, LAN/WAN, telecoms, hardware, Windows and Unix, applications and account management
- Bronze and Silver awards for project management

University of Dublin, Trinity College Senior Systems Programmer

1987-1998

- Customized over 100 PC applications to suit multiple department requirements including roll-out, upgrade and decommissioning
- SQL database administrator and translator
- Taught introductory and advanced courses in a wide range of applications in Trinity and gave seminars in UCD and careers workshops in schools
- Contracted to Irish Health Services, Concern and national television network (RTE)
- Editor of In-House IT magazine
- SME in braille printing system

EDUCATION

University College Dublin 2014 – 2017

MSc (Data Analytics) 1st Class Honours 2017

Three-year postgraduate course incorporating cutting-edge software and modelling techniques, statistics, analysis and mathematics to give insights into large data sets, uncover patterns and make accurate predictions. Major topics included Data Mining, Predictive Analytics, Multivariate Analysis, Time Series, Monte Carlo, Bayesian Analysis and Statistical Machine Learning Algorithms

University College Dublin

1984 - 1987

BSc (Computer Science and Mathematics) 1987

Three-year degree incorporating programming, computer science and mathematical analysis and French translation together with grounding in chemistry, experimental and mathematical physics

St Brendan's College, Bray, Co Wicklow, Ireland 1978 – 1987

Irish Leaving Certificate (6 Honours) 1984

POST-GRADUATE DATA SCIENCE PROJECTS

- Time Series analysis of the rotation of the Earth / length of day (LOD): ARIMA seasonal/trend/random model and prediction over eight years
- Analysis of US Congress voting patterns using Support Vector Machines: Compared accuracy of eight kernels, varying parameters to predict party on 16 votes
- Cluster analysis of Life Tables from the Human Mortality database by age and gender K-means of log values to
 examine mortality peaks by age and gender: Classification tree, regression and SVM of mixed data to predict
 gender
- Analysis of Categorical Data: Definition of Art School classic painters in R and Python Predict art school of painters by drawing technique and choose best slicing method: Compare logistic regression, SVM, Knn and random forest algorithms in SK-Learn
- Regression analysis of Chinese Health & Family Life Survey 1999-2000 by region: GLM analysis of happiness response v other factors to fit best model and plot ROC
- Association Rules report on the presence or absence of symptoms for Alzheimer's patients: Determining optimum S-C-L values to find the best rules for symptom grouping
- Cluster analysis of Romano-British pottery chemicals v kiln type and QDA of Indian data: Compared k-means and hierarchical (Euclid distance) methods to cluster pottery finds Predict diabetes in Pima Indians using covariance matrix and discriminant function
- Bayesian analysis of HR absence rate: Applied a Poisson distribution with prior evidence from the data to give a gamma posterior
- Zero-truncated Poisson-Gamma analysis of vocabulary distribution to categorize writing: Applied a ZTPG model
 to match the sample word frequency and define the author's style
- Cluster report on a 24-hour ultra-race: Compare K-means (Euclid) and K-medoids (Manhattan) analysis with scaling
- Hclust and LCA analysis of Irish government vote / no vote patterns: Hclust comparison using many distance and method parameters and poLCA analysis presented as a general audience article that the groups do not depend on party affiliation
- Smoothing Methods on Athlete Physiological Measurements: Similarity of six methods (Lowess, KSmooth, Spline, PPR, Smooth Spline and GAM)
- Cox Regression of Recidivism data: KM curve of right-censored data and Cox ph model picks the most significant subset
- LCA of Mixture Model of categorical data (film opinions): Defined the optimal clusters from a large group of surveys
- Other projects included bodyweight, lipid and crime analyses in SAS, correlation of US names over 100 years in R
 and to design a full publishable package in R including code of an original application, help files, vignette and
 shiny app