Mark V. Murphy

Data Analyst

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About me ———

I have >10 years' experience in processing, analysing, and communicating data, gained from education, employment, PhD research, and self-directed projects and training. I have a background in science, but with increasing interest and expertise in statistics, programming, and data science in recent years. I also have developing interests in AI, health, and finance, and in the role of technology in driving rapid societal change. I have a lifelong commitment to learning and development, and generally strive for high quality in everything I do. I enjoy applying my varied skills and experience to new challenges, ideally involving meaningful and impactful data-driven projects, products, and services. For further details of my previous experience, skills and outputs, see my longer-form (academic) CV.

Skills

Existing:

- Data Handling (CSVs, Excel, databases/SQL, cleaning, etc.)
- Statistics and Modelling (regression, GLMMs, SEMs, validation, etc.)
- Data Visualisation and Plotting (e.g. {ggplot2})
- Programming (R – analysis, functions, methods, optimisation, etc.)
- Package Development and Version Control (R, Git/GitHub)
- Code Documentation and Examples/Testing (R Markdown, Roxygen2)
- Writing and Editing (vignettes, reports, theses, publications)
- Communication (presentations, media, outreach)
- Teamwork (fieldwork, group projects, workshops, collaborations)
- Project Management (independent work, timelines, etc.)

Learning:

- Machine Learning (classification and clustering techniques, etc.)
- Dashboards/Reports (Power BI, R Shiny)
- Web/Document Styling (CSS, HTML)
- Programming (Python, Julia)

Projects

- This CV (2021–): compiled using the R package {vitae}, and R Markdown, YAML, Pandoc, and LaTeX. Updated regularly.
- Machine Learning course (2021–): Python and R code from Udemy course compiled into a single R {bookdown} project for easy reference. Experimental.
- Forked R package {rscodeio} (2021–): extends RStudio VS Code dark theme (CSS) to Options menu and other IDE elements, R Markdown documents, and {pkgdown} and {bookdown} websites. Experimental.
- R package {dissCqN} (2021–): compositional dissimilarity for species assemblages or interaction networks. v0.1.0.
- R package {semEff} (2019–): effects and confidence intervals for 'piecewise' structural equation models (SEM). v0.6.0. CRAN downloads: 29K.
- Research collaborations (2018–): contributing statistical, programming, editing, and domain expertise to ecological projects (University of Western Australia, University of Leeds, Zhejiang University; publications pending).

Experience

2018–22	Writing, Programming, Retraining, Career Change (w/ breaks) Self-Directed	UK
2016–18	Research Assistant (Data Analysis, Bioinformatics) University of Western Australia	Perth, Australia
2016–16	Lab Demonstrator (Student Assistance, Supervision) University of Western Australia	Perth, Australia
2011–11	Research Assistant (GPS/GIS, Entomology) University of Western Australia	Perth, Australia

Education

2012–16	PhD (Ecology) The University of Western Australia	Perth, Australia
2007–08	MSc (Biodiversity and Conservation) Trinity College Dublin	Dublin, Ireland
2001–05	BA (Zoology) Trinity College Dublin	Dublin, Ireland