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 (ecology), but with increasing interest and expertise in statistics, programming (R), and data science in recent years. I also have developing interests in AI, health, and finance (esp. cryptocurrencies), 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 am currently looking to apply my skills and experience to new challenges and a new role — ideally involving meaningful and impactful data-driven projects, products, and services. For further details on my previous experience, skills and outputs, see my longer-form (academic) CV.

Skills

Existing:

- Data Collection and Management (spreadsheets/CSVs, messy data, etc.)
- Analysis and Modelling (regression, GLM(M)s, SEMs, validation, etc.)
- Visualisation and Plotting (e.g. ggplot2)
- Programming (R — functions, methods, iteration, parallelisation, etc.)
- Package Development and Version Control (R, Git/GitHub)
- Code Documentation and Vignettes (R Markdown, Roxygen2)
- Writing and Editing (reports, theses, publications)
- Communication (presentations, media, outreach)
- Teamwork (fieldwork, group projects, workshops, collaborations)

Learning:

- Machine Learning
- Web/Document Styling (CSS, html)
- Dashboards/Web Apps (Shiny)
- Programming (Python, Julia, SQL)

Projects

- This CV (2021—): compiled using R Markdown, YAML, Pandoc, and LaTeX.
- Forked R package rscodeio (2021—): extends RStudio VS Code dark theme to menus and other IDE elements, R Markdown documents, pkgdown websites. Experimental.
- R package dissCqN (2021—): calculate compositional dissimilarity for species assemblages or interaction networks. v0.1.0. CRAN submission pending.
- R package semEff (2019—): calculate effects and confidence intervals for structural equation models (SEM). v0.5.0. CRAN downloads >15K (~2K/month). New release pending (v0.6.0).
- Bioinformatics (2019—): editing and submission of hundreds of digital DNA sequences and metadata to the Barcode of Life Data System. Published subset here; more pending research publications.
- Research (2018—): contributing statistical, editing, and domain expertise to ecological research projects (University of Western Australia, University of Leeds; publications to follow).

Experience

2018—21	Writing, Programming, Projects, Career Change (incl. 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 (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