# Curriculum Vitae

# Mark Ruddy

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## Personal Statement

I'm a data-driven scientist using R, databases, GIS and other tools to tidy, explore, analyse and visualise data; deliver reproducible work; and creatively communicate ideas and insights.

My background in Earth and environmental sciences has been the springboard to over 10 years' data-oriented experience in public and private sector projects.

## Employment History

- Data and Environmental Consultant:
  - Data science: University of Westminster / Transport for London - Cycling attitudes project
  - Geo-science support for archaeology: Museum of London Archaeology; L-P:Archaeology - Predicting archaeological potential from fieldwork, spatial modelling and domain knowledge
  - Writing and Instructional Design of e-learning products
  - June 2011—September 2014 and May 2016—present
- Science Advisor (East of England)
  - Archaeological Science support to the heritage sector
  - Historic England, 24 Brooklands Avenue, Cambridge, CB2 8BU, UK
  - July 2015—May 2016 (Maternity)
- Database adminstrator
  - Development and population of the Ancient Human Occupation of Britain project database
  - Natural History Museum, London, UK
  - November 2010—April 2011
- Bibliographic database management and GIS
  - Building global models of sea-level change
  - Neftex Exploration Insights, Abingdon, Oxon., UK
  - February 2006—September 2006
- GIS Technician and Technical Lead
  - Task Technical Lead in the world's first national-level digital mapping project.
  - Black & Veatch Ltd, Redhill, Surrey, UK
  - June 2001—September 2004

# Key skills

- Statistical approaches
- Spatial data analysis
- Database: design, management, querying
- Machine learning
- Data visualisation and instructional design
- Functional requirement studies
- Project management
- Independent research

# Tools

- R: base R, *tidyverse*, caret, knitr, R Markdown, Bookdown,…etc
- Databases: MySQL, SQL, Postgres, PostGIS
- Geographical Information Systems: QGIS, ESRI, GMT
- Illustration: Inkscape, Gimp
- Writing: markdown, LaTeX
- Other experience: python, php, html, jekyll

# Academic History

- **PgDip** (Distinction): Geographical Information Science
  - University College London, London, UK
  - October 2014—May 2015
- **PhD**: Quantitative palaeontology and stratigraphy
  - Quantitiative shape analysis of fossils applied to geological dating.
  - *The western Palaearctic evolution of the water vole* Arvicola.
  - Royal Holloway, University of London, Egham, UK
  - October 2006—September 2010
- **MSc** (Distinction): Quaternary Science
  - Royal Holloway, University of London, Egham, UK
  - October 2004—September 2005
- **BSc** (2.1): Biology and Geology
  - University of Manchester, Oxford Road, Manchester, UK
  - September 1994–June 1997

# References

On request