Andy Teucher

R and Data Science Consulting

Highlighted Qualifications

- Advanced skills in data management, analysis and visualization
- Extensive experience in scientific data visualization and written communication for technical and lay audiences
- Expert R programmer
- Statistical inference and modelling (including GLMs, mixed effects models, GAMs)
- Proficient at creating dynamic reproducible reports with RMarkdown and Quarto
- Strong Geospatial data science skills (R, PostGIS, QGIS)
- Extensive experience developing and teaching package development and data science workshops
- Active and passionate open data, open source and reproducible data science community leader
- R Shiny application development and deployment
- Advanced skills in R Package development and publishing packages to CRAN
- Familiarity with modern software development practices and tools
- Extensive experience using version control and open source collaboration using Git and GitHub
- Analytical database development & management including Postgres, SQLite, DuckDB
- Intermediate Python
- Intermediate web development (HTML, CSS, JavaScript)

Professional Experience

January 2023 - June 2023

Package Developer Educator, *Posit Software, PBC*, Remote (Victoria, BC).
- Develop curriculum for teaching R package development
- Write blog posts for the package development community on the Tidyverse blog
- Contribute to development of Posit R packages
- Coordinate team package maintenance
- Manage, edit, and create package cheatsheets and website

July 2022 - January 2023

Data Science Manager, *BC Stats, British Columbia Ministry of Citizen Services*, Victoria, BC, CA.
- Lead a diverse team of data scientists, ensuring they have the time and resources they need
- Supervise and coordinate data scientists using both R and Python
- Coordinate projects, allocate staff resources, and manage client relations
- Coordinate development of data science courses and workshops
- Provide technical and professional leadership, mentorship, and advice

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Sept 2021 - July 2022	**Senior Data Scientist**, *BC Stats, British Columbia Ministry of Citizen Services*, Victoria, BC, CA.

- ○ Work with clients to develop analytical plans for data science projects
- ○ Use R with large datasets (billions of rows) to create robust, reproducible analytical pipelines
- ○ Perform statistical modeling, analysis, and visualization
- ○ Develop R packages to enhance efficiency of data analysis tasks and ensure reproducibility
- ○ Develop and teach data science workshops to BC Government employees
- ○ Provide leadership and advice on data science tools, methods, infrastructure and data management
- ○ Present findings to clients and executive in written documents and presentations

Nov 2011 Sept 2021	**Unit Head (2019-2021) & Environmental Data Scientist (2011-2019), State of Environment Reporting**, *British Columbia Ministry of Environment*, Victoria, BC, CA.

- ○ Provide leadership, financial planning and oversight, and project management
- ○ Mentor and teach data analysis and R programming to staff
- ○ Develop and maintain R packages to support indicator development and reproducible workflows
- ○ Develop & teach data science courses to support data science & programming skills development
- ○ Lead efforts for reproducible, open source data science and open data in B.C. Government
- ○ Perform data analysis and statistical modeling on many environmental topics
- ○ Create public-facing static & interactive visualizations to communicate results using R Markdown & Shiny

Data Science Teaching and Training

Workshops & Learning Content Development.

- ○ Course developer and instructor for R Package development workshop, posit conf, Chicago (September 2023)
- ○ Course developer and instructor for R Package development workshop, Camosun College (August 2023)
- ○ Course developer and lead instructor for several 'Introduction to R' workshops for BC Public Servants
- ○ Co-developer and instructor for 'Introduction to Geospatial analysis with R' workshop in BC Ministry of Environment
- ○ Instructor for 'Introduction to Git and GitHub' for BC public servants
- ○ Regular contributor to many online learning platforms and forums (e.g., StackOverflow, internal BC government social platforms, wikis, GitHub issues and pull requests)

Certified instructor for Software Carpentry and Data Carpentry.

- ○ Contributor to several Software Carpentry and Data Carpentry lessons
- ○ R, Shell, and Git instructor at University of Victoria Software Carpentry workshop (Dec 2016)

Education

2003 - 2006	**Master of Science (Ecology)**, *University of Calgary*, Calgary, AB, CA.
1997 - 2001	**Bachelor of Science (Zoology)**, *University of Calgary*, Calgary, AB, CA.

Additional Training

2022	Certified Scrum Product Owner Training. Scrum Alliance (Alluvial Consulting)
2021	Brene Brown's 'Dare to Lead'. Rick Thomas
2019	Enhancing Emotional Intelligence for Workplace Success. Justice Institute of British Columbia
2018	Advanced R Workshop. Charlotte Wickham
2018	Lego4Scrum Workshop. BC Public Service
2017	rOpenSci Unconf (https://unconf17.ropensci.org/). rOpenSci

2017   Collaborative Conflict Resolution. Justice Institute of British Columbia
2016   Presenting Data and Information. Edward Tufte
2016   Fierce Conversations. BC Public Service Agency
2015   Advanced Trend Detection Analyses in R. Ghement Statistical Consulting Ltd
2014   Bayesian Analysis in R. Poisson Consulting
2014   Software Carpentry Instructor Training. Software Carpentry Foundation
2014   Software Carpentry Bootcamp. Software Carpentry Foundation
2013   Computing for Data Analysis. Coursera
2012   Telling Stories with Data. Tyee Master Class
2011   Modeling patterns and dynamics of species occurrence workshop. Darryl MacKenzie, Proteus Wildlife Research Consultants

Selected R Packages

CRAN

1.   Teucher, A., & Russell, K. (2023). *rmapshaper: client for 'mapshaper' for 'geospatial' operations*. https://CRAN.R-project.org/package=rmapshaper

2.   Teucher, A., Albers, S., & Hazlitt, S. (2023). *bcdata: search and retrieve data from the bc data catalogue*. https://CRAN.R-project.org/package=bcdata

3.   Teucher, A., Albers, S., & Hazlitt, S. (2023). *bcmaps: map layers and spatial utilities for british columbia*. https://CRAN.R-project.org/package=bcmaps

4.   Wickham, H., Bryan, J., Barrett, M., & Teucher, A. (2023). *usethis: automate package and project setup*. https://CRAN.R-project.org/package=usethis

5.   Chamberlain, S., Teucher, A., & Mahoney, M. (2023). *geojsonio: convert data from and to 'geojson' or 'topojson'*. https://CRAN.R-project.org/package=geojsonio

6.   Teucher, A. (2019). *lutz: look up time zones of point coordinates*. https://CRAN.R-project.org/package=lutz

GitHub

1.   Teucher, A. (2022). *canwqdata: get canadian long-term water quality monitoring data*. https://github.com/bcgov/canwqdata

2.   Teucher, A., & Harker, K. (2022). *rems: get data from british columbia's environmental monitoring system*. https://github.com/bcgov/rems

3.   Albers, S., Teucher, A., & Robert, B. (2022). *dipr: provide functions to efficiently import sre data*. https://github.com/bcgov/dipr

4.   Teucher, A., Hazlitt, S., & Albers, S. (2020). *bcgovr: set up of 'bcgov' r projects & packages*. https://github.com/bcgov/bcgovr

5.   Teucher, A., Verma, A., LaZerte, S., & Hazlitt, S. (2019). *rcaaqs: tools to implement caaqs analysis for air quality*. https://github.com/bcgov/rcaaqs

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