Sebastian Sciarra

Data scientist

seb@sciarra.io

Skills

R · SQL · Python · LaTeX · Bash · HTML · JavaScript · CSS · Machine learning · Data science · Data visualization · Knowledge translation

sebastiansciarra.com

sebsciarra

Sebastian Sciarra

May 2023
Citizenship: Canadian

Education

PhD, Industrial-Organizational Psychology **Sep. 2018–May 2023**
University of Guelph

- Thesis title: **Is Timing Everything? The Effects of Measurement Timing on the Performance of Nonlinear Longitudinal Models**
- Conducted Monte Carlo simulation experiments using R on an Amazon Web Services (AWS) instance to evaluate the performance of structured latent growth curve models under several conditions
- My thesis can be viewed here

MSc, Psychology **Sep. 2016–June 2018**
McMaster University

- Thesis title: **Do the Benefits of Retrieval Practice Remain Under Stress?**
- Used Python to design memory experiments and used R to analyze data.

Honours BSc, Psychology, Neuroscience & Behaviour **Sep. 2012–June 2016**
McMaster University

Employment

Teaching Assistant **Sep. 2018–May 2023**
University of Guelph

- Created R scripts for assignments and taught labs for the following courses in measurement and statistics:
  - PSYC 3290 (Conducting Statistical Analyses in Psychology)
  - PSYC 3250 (Psychological Measurement)
  - PSYC 6060 (Research Design and Statistics)
  - PSYC 6380 (Psychological Applications of Multivariate Analysis)
- Taught a variety of topics in statistics (e.g., regression with continuous and categorical [i.e., ANOVA] variables, *p* values, *p* hacking, effect sizes, factor analysis, latent variable modelling, etc.)

Data Science Projects

cobaltResume* **May 2023**
R Package

- Created an R package for generating résumés and cover letters within RStudio
- LaTeX code was used to specify a styling template that draws inspiration from the cobalt

*clickable hyperlink to the corresponding repository on my GitHub

theme in the RStudio IDE
- R functions were created to easily generate résumé entries and merge résumés and cover letters into one PDF file

sebastiansciarra.com* **Mar. 2023**
Personal website
- Used HTML, JavaScript, and CSS to create a personal website for writing blog posts
- Blog posts focus on statistics, machine learning, and coding by explaining technical details, providing demonstrations, and conducting simulation experiments
- Blog posts use code from a variety of language to explain content. As an example, my post titled "Coding and Visualizing the Expectation-Maximization Algorithm" used R, Python, and CSS code

guelphdown* **Mar. 2023**
R Package
- Created an R package for generating theses according to the University of Guelph formatting requirements
- LaTeX code was created to specify a template, which included different formattings for the preamble, body, refences, and appendices
- An example of the formatting can be seen in my thesis

nonlinSimsAnalysis* **March 2022**
R Package
- Created an R package that contained functions for automating the cleaning, analysis, and visualization of large data sets for my doctoral dissertation (e.g., 40 000+ rows)

nonlinSims* **Jan. 2022**
R Package
- Created an R package for simulation experiments in my doctoral dissertation
- Package allows the performance of structured latent growth curve models to be evaluated under several different conditions

Learning SQL* **Mar. 2021**
Skill learning
- Went through 16 of 18 chapters from Alan Beaulieu's Learning SQL
- Topics include filtering, querying multiple tables, sets, grouping and aggregates, subqueries, joins, transactions etc.

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Certifications

DataCamp courses **June 2018–Aug. 2020**
Skill learning
- Completed 35 courses ranging from data visualization and writing functions to machine learning topics such as tree-based models and support vector machines. For a full list of the courses, see the relevant section on my LinkedIn here

*clickable hyperlink to the corresponding repository on my GitHub

May 2023
Citizenship: Canadian