

# Kory D. Johnson, PhD

## Senior Data Scientist & Consultant

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I work within both industry and academics to deliver cutting-edge analyses and scientific reports in disparate application domains. During my academic career, my research was published in leading venues in multiple fields, I created and taught a wide variety of courses, and I developed a skill set to both apply and improve upon state-of-the-art methods.

## EXPERIENCE

### KORY D. JOHNSON, EPU | STATISTICAL CONSULTANT

April 2022 - Current | Remote

- Diverse consulting projects supporting academic researchers and industry.
- Data cleaning, model generation and verification, assumption checking, panel data analysis, feature selection, factor analysis, writing and graphing for publication etc.

### ACADEMIC POSITIONS | ASSISTANT PROFESSOR, NON-TENURE TRACK

September 2016 - July 2022 | Vienna, Austria

- Institutions: TU Wien (Applied Statistics Research Unit); Vienna University of Economics and Business (Institute for Statistics and Mathematics); University of Vienna (Department of Statistics and Operations Research)
- Published in leading scientific journals and conferences in statistics, machine learning, epidemiology, data mining, and computer simulation.
- Wrote, documented, and published 2 R packages implementing novel algorithms.
- Gave invited talks at professional conferences across Europe and the US.
- Developed 4 courses in applied statistics and advanced data science case studies in R. Additionally taught economics, financial mathematics, and optimization.

### SHELTERLUV | STATISTICAL CONSULTANT

May 2020 - December 2020 | Remote

- Start-to-finish solo project under my direction in consultation with the COO.
- Data cleaning, processing, wrangling, modeling, analysis, and visualization in R.
- Managing client expectations as data quality was lower than anticipated.

## DETAILS OF SELECTED PROJECTS

### SHELTERLUV | R, Nontechnical White Paper Cited by the Company

- 1.5 million transaction records from Shelterluv's nearly 600 business customers.
- The core issue was actually understanding what claims could be validly made in light of not-so-obvious recording errors and data limitations.
- Developed a statistically sound approach which provided causal claims about the positive impact Shelterluv had had on its clients.

### PREDICTION INTERVALS FOR NEURAL NETWORKS | PYTHON, ML CONFERENCE PAPER

- Developed a regression neural network which provides provably valid prediction intervals around its estimates; can be applied to nearly any network architecture.
- Data applications include time series, image analysis, and sales prediction.

### ROBUST MODELS OF SARS-COV-2 | R, JOURNAL PAPER, PACKAGE DEVELOPMENT

- A mathematical model and simulation framework to explore complex systems.
- Led research group of 5 which included professors, post docs, and PhD students.
- Paper written for epidemiologists and was lauded by anonymous reviewer as "one of the best COVID modeling papers...in terms of technical depth and clarity".

## SKILLS

### PROGRAMMING

Expert:

R (base, tidyverse) •  $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$

Proficient:

Python (PyTorch, pandas, sklearn) • SQL • Microsoft Office

Familiar:

C# • Matlab • VBA

### TOOLS/PLATFORMS

Git • Linux • Jupyter

## EDUCATION

### THE WHARTON SCHOOL

UNIVERSITY OF PENNSYLVANIA

M.A. STATISTICS; PH.D., STATISTICS

2011 - 2016 | Pennsylvania, USA

School of Business

### THE WHARTON SCHOOL

UNIVERSITY OF PENNSYLVANIA

B.S. IN ECONOMICS SUMMA CUM LAUDE

2007 - 2011 | Pennsylvania, USA

School of Business

### COLLEGE OF ARTS AND SCIENCES UNIVERSITY OF PENNSYLVANIA

B.A. IN PHILOSOPHY AND

ECONOMICS

SUMMA CUM LAUDE; WITH DISTINCTION

2007 - 2011 | Pennsylvania, USA

Liberal Arts School

## ADDITIONAL

Language

German (B2/C1) • Spanish (A2)  
• English (native)

Hobbies

Rock climbing • Splitboarding •  
Ski Touring • Gaming