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) • LaTeX

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