




Ryden Butler, Ph.D.


Data Scientist, Causal Inference



 me@rydenbutler.org

 rydenbutler.org

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EDUCATION

Ph.D. Political Science
Washington University in St. Louis
Fields Statistical Methodology
American Politics
2015 - 2021

M.A. Statistics
Washington University in St. Louis
2019 - 2021

**B.A. Political Science
Economics
History**
University of Miami
2011 - 2015

SKILLS

- causal inference
- hypothesis testing
- experimental design
- statistical modeling
- measurement
- survey design
- data visualization
- ETL

SOFTWARE

Programming

R	Expert
python	Expert
SQL	Expert
Excel, Sheets	Expert
C++	Proficient
STAN, JAGS	Proficient
Matlab	Familiar
Stata	Familiar

Platforms

Github, Gitlab	Proficient
Prefect	Proficient
AWS (S3, ECR, MTurk)	Proficient
Docker	Familiar

Visualization


L ^A T _E X	Expert
Sisense	Expert
HTML5, CSS	Familiar

EXPERIENCE

2022-2023



Data Scientist, Experimentation


EVOLVE · Remote 

- Develop DARWIN, the in-house experimentation platform by:
 - Recommending development roadmap based on business demand
 - Implementing new statistical methods and tests to extend functionality
 - Simulating experiments to stress-test and evaluate platform performance
 - Leveraging Prefect for distributed computing and routine platform processes
 - Assuming all development responsibilities of Data Analyst, Experimentation
- Oversee high-impact and technically-complex experiments
- Leverage novel causal inference methods for new insights from existing data
- Supervise long-term experimental projects in pursuit of company OKRs
- Grow demand for causal inference products across the business
- Educate cross-functional teams on causal inference best-practices
- Mentor Data Analysts on experimental design and causal analyses
- Conduct interviews for & provide feedback on new Data Science Team hires

2021-2022



Data Analyst, Experimentation


EVOLVE · Remote 

- Assisted leadership in identifying opportunities for growth and optimization
- Scoped and launch tests alongside leadership, data scientists, and engineers
- Isolated treatment effects from experimental data and project business impacts
- Created observational causal inference models to learn from pre-existing data
- Crafted custom visualization for monitoring experiments and presenting results
- Contributed to DARWIN, the in-house experimentation platform by:
 - Tuning existing models to improve precision and reduce bias
 - Modularizing and updating code to optimize platform performance
 - Automating manual processes to improve efficiency
 - Performing code review to ensure platform integrity
- Communicated key results to stakeholders in verbal and written form
- Documented experiment outcomes to spur the experimentation feedback loop

2017-2021



Graduate Research Scientist

WASHINGTON UNIVERSITY IN ST. LOUIS · St. Louis, MO 

- Learned new quantitative skills and analytics software to suit research needs
- Researched novel statistical methods at the forefront of social science
- Built, tuned, and deployed statistical models in the realms of:
 - Frequentist and Bayesian Statistics
 - Observational Causal Inference
 - Mixed Effects & Hierarchical Modeling
 - Longitudinal, Time Series & Survival Modeling
- Scraped web and social media data using APIs and custom-made scrapers
- Processed data using an online workforce and developed associated R software
- Managed researchers in labeling data and developed associated R software
- Taught python bootcamp on base coding, NLP, and web-scraping
- Developed and fielded survey experiments on Facebook and Mechanical Turk
- Built and maintained relational databases in SQL
- Drafted technical manuscripts for review and publication
- Collaborated with co-authors to condense complex analyses into manuscripts
- Created figures, tables, and diagrams to visualize research methods and results
- Presented research verbally at workshops and conferences

2018



Junior Contractor, Election Night Support

YouGov · Remote 

- Provided on-call troubleshooting for election night web scrapers
- Collaborated with a team to ensure data quality and triage exceptions
- Pushed R code hotfixes via GitHub