Ryden Butler, Ph.D.

Data Science Lead

✉ me@rydenbutler.org

🌐 rydenbutler.org

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○ RydenButler

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
- statistical modeling
- machine learning
- data reduction
- survey design
- data visualization
- ETL / ELT

SOFTWARE

Programming

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

Platforms

Snowflake	Expert
Github, Gitlab	Proficient
Prefect	Proficient
AWS (S3, EC2, MTurk)	Proficient
Salesforce	Familiar
Docker	Familiar

Visualization

LaTeX	Expert
Sisense	Expert
Tableau	Familiar
HTML5, CSS	Familiar

EXPERIENCE

2023-Pres.

Data Science Lead - Core Data Science
EVOLVE VACATION RENTALS · Remote 📍

- Ideate & advocate for high-impact data science initiatives among leadership
- Direct development of DARWIN and ORIGIN, in-house causal inference packages:
  - *Set development roadmap based on business demand & teammate input*
  - *Coordinate compute resources with devops, analytics & engineering teams*
  - *Assume all development responsibilities of Data Scientist - Causal Inference*
- Break ground as individual contributor in diverse domains, such as:
  - *Text analysis, natural language processing & generative AI*
  - *Customer segmentation, churn prediction & LTV estimation*
- Act as resident expert on causal inference, experimentation & A/B testing
- Own & maintain data science support tools:
  - *Shared utilities python package,* dsutils
  - *Gitlab CI/CD pipeline*
  - *Prefect deployments & flows*
- Oversee data science team members, reviewing performance & fostering talent

2022-2023

Data Scientist - Causal Inference
EVOLVE VACATION RENTALS · Remote 📍

- Developed DARWIN, the in-house experimentation platform by:
  - *Recommending development roadmap based on business demand*
  - *Implementing new statistical methods & unit tests to extend functionality*
  - *Simulating experiments to stress-test & evaluate platform performance*
  - *Adopting Prefect for orchestration & distributed computing*
  - *Assuming all development responsibilities of Data Analyst - Experimentation*
- Leveraged novel causal inference methods for new insights from existing data
- Supervised long-term experimental projects in pursuit of company OKRs
- Grew demand for causal inference products across the business
- Educated cross-functional teams on causal inference best-practices
- Adapted communication style across technical & business stakeholders

2021-2022

Data Analyst - Experimentation
EVOLVE VACATION RENTALS · Remote 📍

- Assisted leadership in identifying opportunities for growth and optimization
- Estimated effects of experiments & projected future business impacts
- Utilized observational causal inference models to learn from pre-existing data
- Communicated key results to stakeholders in verbal and written form
- Crafted visualizations & dashboards for monitoring tests & presenting results
- Contributed to DARWIN, the in-house experimentation platform by:
  - *Tuning existing models to improve precision & reduce estimator bias*
  - *Modularizing & updating code to optimize platform performance*
  - *Automating manual processes to improve efficiency*
  - *Performing code review to ensure platform integrity*

2017-2021

Graduate Research Scientist
WASHINGTON UNIVERSITY IN ST. LOUIS · St. Louis, MO 📍

- Built, tuned & deployed statistical models in the realms of:
  - *Frequentist & Bayesian Statistics*
  - *Observational Causal Inference*
  - *Mixed Effects & Hierarchical Modeling*
  - *Longitudinal, Time Series & Survival Modeling*
- Scraped web & social media data using APIs & Selenium
- Processed validation data using an online workforce & developed R software
- Developed and fielded survey experiments on Facebook & Mechanical Turk
- Drafted technical manuscripts for review & publication

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 & triage bugs