Taylor Dunn

Halifax, Nova Scotia

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Experience

Data Scientist, Ads *Remote*
Yelp *2022-*

- Led experimentation across multiple ads product teams by designing, analyzing, interpreting, and communicating results of A/B tests and geo experiments.
- Built reusable analytic tools in Python that standardized and automated post-experiment reporting, improving consistency and reducing analyst effort across teams.
- Designed and executed causal analyses to distinguish correlation from true drivers of advertiser retention, guiding investment prioritization.
- Mentored junior data scientists, developing their ads domain expertise and ensuring high standards in experimentation design, statistical methodology, and code quality.

Biostatistician *Halifax, NS*
Ardea Outcomes *2017-2022*

- Worked on global clinical trials in multiple disease areas. Duties included: study planning, statistical analysis, and data management.
- Conducted patient-centric research, resulting in several peer-reviewed publications and presentations. Examples:
  - Developed a machine learning model to predict patient dementia stage, achieving 83% balanced accuracy. (Paper 1, paper 2.)
  - Used data simulations to investigate statistical properties of the Goal Attainment Scaling outcome measure. (Project 1, project 2.)
  - Analyzed neuropsychiatric symptoms reported by over 4000 online users tracking dementia symptoms. (Paper.)
- Built the R code infrastructure for many data analysis and management activities, saving analysts several hours per week in each project.

Teaching Assistant *Halifax, NS*
Dalhousie University, Department of Physics *2014-2016*

- Aided instruction of Physics students in the undergraduate course *Introduction to Numerical Programming*.
- Ran weekly Python tutorial sessions, graded assignments and projects, and gave lectures when professor was absent.

Education

Dalhousie University *Halifax, NS*
MSc Physics *2014-2016*

University of Prince Edward Island *Charlottetown, PE*
BSc Physics, Honours *2009-2014*

Projects

Predicting bike ridership in Halifax, NS
https://github.com/taylordunn/hfx-bike-ridership *2022*

- An end-to-end machine learning project to predict daily bike ridership in Halifax, Nova Scotia, Canada.
- Deployed on Google Cloud Platform as a Shiny dashboard and a REST API.
- Wrote about the steps taken in a three part series: retrieving the data, developing and evaluating models, and putting the model into production.

Canadian COVID-19 dashboard
https://taylor-dunn.shinyapps.io/canadacovidshiny/ *2021*

- A dashboard built in Shiny that reported and visualized the latest COVID-19 numbers in Canada.
- For daily data updates, created an R package (canadacovid) to pull the latest data from a public API, which was published on CRAN.
- Wrote about the process in a three part series: exploring the data, creating the package, and scheduling data queries.

Skills

Programming	Tools	Data analysis
Python: Pandas, Scikit-learn, Pyspark	Git – Amazon Web Services	A/B testing – Geo experimentation
R: tidyverse, Shiny, ggplot2, Quarto, tidymodels	Spark – Docker	Power analysis – Difference-in-difference
SQL – Bash	Google Cloud Platform	Propensity score matching – Machine learning