Denis Ostroushko, M.S.(C)

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PROFILE

Driven Statistician with over five years of experience leading data analysis projects in industry and academic settings. Professional experience demonstrates proven history of successful projects utilizing essential data science and statistical methods to aid decision making process in the business and public health areas. Motivated by complex problems and collaborative environment and committed to delivering accurate and impactful results.

RELEVANT SKILLS & KNOWLEDGE

Regression Analysis Machine Learning Predictive Analytics Quantitative Research Statistical Testing
Strong Mathematical Foundations Data Visualization and Reporting Version Control Automated Analytical Tools
Big Data Management Data Wrangling Feature Engineering Analysis Pipeline Design Statistical Analysis Planning
Data Management and Transformation Subject Matter Expert Collaboration Results Interpretation and Decision Making
ICD-10 codes DRG codes CPT codes Claims Data Enrollment Data Large Insurance Datasets
Commercial Insurance Data Analysis Medicare and Medicaid Insurance Data Analysis Electronic Health Records
Cross-Functional Team Leading Literature Review Manuscript Management and Publishing

RELEVANT EXPERIENCE

Department of Biostatistics – University of Minnesota | Minneapolis, MN

Graduate Research Assistant (2023 – Present)

- Collaborated with Dr. Julian Wolfson to evaluate the impact of cohort definition on the analysis of progression time and rates to Alzheimer's Disease (AD).
- Applied core data science and statistical principles of cohort selection and study sample design to observation data for causal inference data analysis.
- Leveraged data from the Fairview Health System to conduct a sensitivity analysis study of cohort definitions using survival models in R. Extracted and created data from Electronic Health Records using SQL. Suggested inclusion criteria resulting in robust sample of data and maximized sample size.

Graduate Research Assistant - Alzheimer's research project (2023 – Present)

- Developed a regression and machine learning analysis pipeline in R to to identity variables most associated with AD presence. Selected variables were used by our group in subsequent analyses.
- Generalized results to multiple gene expression, SNPs, and lipidomics data sources, found best fitting novel ML methods in R and Python for integrated data analysis to improve balanced accuracy of predictions by 17% for at-risk of AD population.

Medica | Minneapolis, MN

Healthcare Statistical Analyst II (2021 – 2023)

- Collaborated with business owners to assess member assistance programs. Used statistical models and simulations with R to understand cost savings distribution. Developed a strategy, resulting in an additional $1,000,000 annualized savings.
- Collaborated with member identification team to improve risk models for hospital readmission. Developed a set of predictive models in R and Python. Best classifier improved AUC score by 15%.
- Designed and executed a study to establish causal effect of a member assistance program on healthcare spend. Developed propensity score models for matching. Used bootstrap methods to get variance of cost savings estimate. Using power and sample size calculations to recommend next evaluation steps and goals. Performed subgroup analysis to recommend areas for additional cost savings opportunity, resulting in additional 21% increase in savings at the following evaluations.
- Automated actuarial completion factors model using SAS. Improved estimation granularity, reduced prediction error by 35%. Reduced delivery time for the final product.

Healthcare Statistical Analyst I (2019 – 2021)

- Led the introduction of benchmarks from Milliman proprietary software. Improved identification of cost savings opportunities and increased strategy transparency.
- Designed a library of SAS macros and standardized procedures to pull enrollment, medical claims, and ACG John Hopkins grouper data from the database to perform ad-hoc analyses.
- Designed, maintained and improved a series of tools to automate data collection and surveillance reporting using SQL and SAS. Reduced ELT efforts by 90 percent and decreased run time of data collection. Surveillance reports were used to find areas appropriate for deeper investigations and statistical studies.

EDUCATION

University of Minnesota – School of Public Health | Minneapolis, MN
M.S., Biostatistics (Expected May 2024)

University of Minnesota-Morris | Morris, MN
B.A., Mathematics, Statistics (May 2019)

TECHNICAL SKILLS

R/Rstudio; SQL; SAS; Python; Github/Gitlab; AWS S3 Databases; ggplot; tidyverse; ShinyApp; flexdashboard; quatro; rmardown; Jupyter notebooks;