

Experience

Data Scientist, November 2020-Present
Aspirus Health, Wausau, WI

- Collaborate with clinical/operational leadership/staff to build data products that improve patient care, clinical operations, and business outcomes
- Created an ETL process from various sources to achieve a centralized data model that enables readily-available access, benchmarking, and insights from the Vizient Clinical Database through QlikSense
- Built R Shiny applications to explore "what-if" scenarios for Quality programs for identifying improvement opportunities and assessing financial impact
- Conducted analysis with R Markdown to provide annotated, interactive, reproducible data stories around key clinical/business metrics

Advanced Analytics Modeler, December 2019-October 2020
Sentry Insurance, Stevens Point, WI

- Built a text mining tool in Python's spaCy framework to extract patterns from claim notes
- Integrated producer activity text data into predictive (ML) models to enhance prospect prioritization
- Created Tableau dashboards to explore geographic impact of pricing models and underwriting issues
- Wrote SQL queries in SAS to extract data from various sources and build analysis datasets

Biostatistician, June 2017-December 2019
Cleveland Clinic, Cleveland, OH

- Built, automated, and operationalized a predictive model to identify patient's at high risk for appointment no-show
- Developed R Shiny web applications to implement risk prediction models for clinical use
- Wrote SQL queries to extract EHR data utilizing the UMLS
- Consulted with pharmaceutical companies on EHR-based health outcomes research projects

Skills

General

Translating business problems to data problems, project scoping and management, communication of project specifications and results, automating processes/workflows, collaboration and leadership

Technical

R (tidyverse, ggplot, shiny), SQL, QlikSense, Python (pandas, spaCy), Java; statistical analysis and predictive modeling; data modeling, cleaning, manipulation, visualization; text analysis, NLP, regular expressions

Education

M.S. in Statistics, 2017
University of Iowa
Iowa City, IA

- Major GPA: 3.93

B.S. in Statistics, 2015
UW-La Crosse
La Crosse, WI

- Major GPA: 3.91
- Minor: Computer Science

Projects

- R package for Naive Bayes' document classification with Java backend
- Gibbs' sampler in Python
- Custom database language in Java with a hash index and random access files

Coursework

applied statistics, statistical inference, computer intensive statistics, machine/statistical learning, model selection, sports statistics, bayesian statistics, applied time series, nonparametric statistics, categorical data analysis, database management, software design (Java), calculus I-III, linear algebra