

Experience

Tokio Marine HCC

Remote

Senior Data Scientist

October 2021 - Present

- Created machine learning models to identify at least \$2.8 million in additional property premium as well as the underwriting variables we need to charge more on.
- Analyzed the spatio-temporal impact of catastrophic weather events (wind storms, earthquakes, etc.) and previous loss trends to guide underwriting decision making.
- Modeled and analyzed historic loss trends for various coverages to determine rating adequacy (Which variables have we seen higher than expected losses, should we charge more?).
- Created survival analysis models to determine what types of policies are least likely to cancel and nonrenew.

Westfield Insurance

Westfield Center, Ohio

Lead Personal Lines Analyst

September 2019 - October 2021

- Created interpretable machine learning models (decision trees, generalized linear models) to analyze feature importance and report key findings for why policies are issued and canceled.
- Responsible for all data steps in Westfield's \$17 million auto premium refund including determining eligibility, calculating the refund amount, and the financial impact to Westfield.
- Analyzed and reported impacts of Westfield's new Vehicle History Score and Insurance Score modeling and how those changes impact our book of business (especially certain segments of customers).
- Simulated impact of transfer book price matching to determine how long the planned implementation would take to yield overall premium growth and the optimal rate change to apply.

The University of Akron

Akron, Ohio

Statistical Consulting

August 2018 - December 2019

- Applied decision trees and interpreted results for a nutritional study concerning caffeine's relationship with diabetes.
- Implemented hypothesis testing to detect changes in hearing loss between regular police officers and those assigned to K-9 units.

Skills/Projects

Created a personal website hosted on Github using R

www.kylejeffreese.com

Software: Experience with SQL, Python, R, Tableau, Excel, SPSS, HTML, CSS; basic SAS and C++

Education

The University of Akron

Akron, Ohio

Masters of Science in Statistics

June 2018 - Now

Thesis: Relating to fMRI Spatio-Temporal Analysis

The University of Akron

Akron, Ohio

Bachelors of Science in Statistics

June 2016 - December 2018

Thesis: The Influence of Invasion Timing on Invasion Success as Predicted by an ODE Model of Competing Species in the Presence of Infectious Disease