

YU JIANG

9794027023

yjiang29@vols.utk.edu

254C1 Stokely Management Center, 916 Volunteer Blvd, Knoxville, TN 37996

EDUCATION

University of Tennessee, Knoxville <i>Ph.D. Student in Business Analytics and Statistics</i>	<i>Aug 2021 - Present</i>
North Carolina State University <i>Master of Statistics</i> <i>GPA: 3.81/4.00</i>	<i>Aug 2019 - May 2021</i>
Texas A&M University <i>Master of Engineering in Civil Engineering</i> <i>GPA: 3.36/4.00</i>	<i>Aug 2016 - Dec 2018</i>
Harbin Engineering University <i>Bachelor of Engineering in Coastal Engineering</i> <i>GPA: 3.32/4.00</i>	<i>Aug 2012 - Jul 2016</i>

ACADEMIC RELATED PROJECTS

North Carolina State University <i>ST501 Fundamentals of Statistical Inference I</i>	Raleigh, North Carolina <i>Aug 2019 - Nov 2020</i>
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- Demonstrated that the minimum order statistic from a random sample from $\text{exp}(1)$ distribution converges in probability to zero by using the CDF of an exponential distribution
- Created simulated datasets and visualized convergence concepts with these data
- Applied Monte Carlo simulation to acquire an approximate probability

ST537 Applied Multivariate and Longitudinal Data Analysis

- Investigated whether succimer (either low or high-dose form) plays a part in reducing blood lead levels for eight weeks among children by linear mixed-effects models with different error covariance structures
- Analyzed whether blood lead levels within this population are associated with the age and gender of children after choosing a reasonable model by constructing the confidence interval and p-value
- Studied the models for three different treatment groups after removing the insignificant predictor – gender

ST540 Applied Bayesian Analysis

- Adapted the MCMC to analyze the marathon performance data for female and male athletes to determine whether Nike Vaporfly shoes (worn or not) affects performance
- Constructed three possible models: constant slopes, varying slopes with uninformative priors, and varying slopes with informative priors and then used the R package ‘rjags’ to carry out these models with treating the performance time as the response, the gender, and whether to wear this shoe as the predictors, considering the course and the runner effects
- Compared these models by the criteria DIC Penalized Deviance and WAIC and derived the coefficients

ST558 Data Science for Statisticians

NHL Exploration

- Created a function to contact the NHL records ‘Franchise’ API

- Explored some data analysis with contingency tables, side-by-side bar plot, side-by-side box plots, and scatter plots with coloring

Prediction of Online News Popularity

- Produced some statistical summary about an online news popularity data set
- Fitted some regression models and ensemble models after splitting data into a training set and a test set with 'caret' package
- Used automation to generalize other reports with cycling through one cluster variables

A Shiny APP to Explore 'Student Academic Performance'

- Generated an APP about 'Student Academic Performance' data analysis from UCI Machine Learning Repository with 'shinydashboard' package in R.
- Explored the data set both with the numeric and graphic summaries
- Fitted the unsupervised model (PCA), supervised mode (linear regression model) to the data set

ST563 Introduction to Statistical Learning

- Analyzed the wine quality data from UCI Machine Learning Repository by treating 'quality' as the response and other variables as the predictors
- Fitted regression models to the training data set and made a prediction to the test data set with 'caret' package in R

Texas A&M University

STAT626 Methods of Time Series Analysis

College Station, Texas

May 2018 - Jul 2018

- Reviewed Apple stock price in the course Methods in Time Series Analysis
- Obtained AAPL daily adjusted close price data from Yahoo Finance and the time series plot by using R code
- Assembled the ARIMA, VAR, and GARCH models and evaluated their performance to acquire optimal AAPL daily adjusted close price forecasting model with R

WORK EXPERIENCE

University of Tennessee

Teaching Assistant

Knoxville, Tennessee

Aug 2021 - Present

- BZAN540 Applied Regression Analysis for Business

University of Tennessee

Research Assistant

Knoxville, Tennessee

Aug 2021 - Present

- Working with Dr. Wenjun Zhou

Texas A&M University

Grader

College Station, Texas

Sep 2017 - Dec 2017

- CVEN311 Fluid Dynamics

SKILLS

Programming skills:

R, SAS, Python, JMP, SQL, Tableau, LaTeX

Languages:

Chinese, English

Certificate:

SAS Certified Base Programmer