

Eric Connelly
Portfolio: <https://github.com/Eric-Conn>
Website: <https://eric-conn.github.io>
New York City

Projects

NYC Ferry Data Time Series Forecasting

Pulled the data from the NYC Open data website and then loaded it into a Pandas Dataframe and then used time series decomposition to build a model to make predictions of future ridership numbers. For the decomposition, I first seasonally adjusted the data, then used SciKit-Learn to fit a linear regression model to the data. I then evaluated the model's goodness of fit on the data.

U.S. Food Imports Data Time Series Forecasting

Used Google Sheets to transform the data into a time series, and then loaded the data into a Pandas dataframe. From there, I implemented an exponential smoothing model and used and implemented an optimization algorithm to find the best smoothing parameter value with respect to the mean squared error of the model v.s. the data. Using the exponential smoothing model I predicted next year's food values.

Mega Millions Winning Numbers Data Analysis

Calculated the chance of winning the jackpot and then analyzed the distribution of previous winning numbers. Pulled the data from the official website and then loaded it into a Pandas dataframe and then used Matplotlib to graph the distributions of winning numbers. Used my knowledge of probability and Numpy to calculate the chance of winning the jackpot.

Education

Bachelor of Science in Mathematics

CUNY College of Staten Island

Departmental Honors in Mathematics, Cum Laude, GPA: 3.738

Honors Thesis in Topological Data Analysis

Skills and Tools

Data Cleaning, Data Visualization, Data Analysis, Model Selection, Model Evaluation.

Statistics, Machine Learning Algorithms(Supervised and Unsupervised)

Predictive Modeling, Inference

Python (Pandas, Numpy, Sklearn, TensorFlow, Jupyter Notebooks)

SQL

Excel, Google Sheets

Work Experience

Math and Statistics Tutor

February 2023 - Present

SUNY Fashion Institute of Technology

Helping students succeed in their college careers by helping them strengthen and gain confidence in their problem solving skills. Currently tutoring in Excel, R, Mathematics, and Statistics. The majority of my

regular students show improved problem solving skills and technical skills by the end of the semester, and will be able to use these skills in future classes. I also contribute puzzles to their Newsletter.

Supplemental Instructor in Mathematics

January 2020 - May 2020

CUNY College of Staten Island

Led supplemental classes in Pre-Calculus.

Mathematics Tutor

August 2019 - September 2019

CUNY College of Staten Island

Tutored students in subjects ranging from basic Algebra to Calculus 3 and Linear Algebra.

Certifications

Google Data Analytics Professional Certificate