# Wayne Ji

#### Education

# University of North Carolina - Chapel Hill

**Bachelors of Science in Statistics** 

Bachelors of Science in Computer Science

Relevant Coursework: Machine Learning, Introduction to Time Series, Data Science, Files and Databases, Methods of Data Analysis, Data Structures, Stochastic Modeling, Algorithms & Analysis

## Google Data Analytics Certificate

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Coursera

Completed eight courses developed by Google teaching how to prepare, process, analyze, and share data for thoughtful action using spreadsheets, SQL, Tableau, and R

### **Project Experience**

# Predicting Feed-grain Prices from Weather Features

2019 Carolina Data Challenge, USDA 2019 Feed-grains Agricultural Analysis

- Participated as a team of four in a data science hackathon analyzing the USDA 2019 Feed-grains Agricultural Dataset
- Joined weather data gathered from the National Oceanic and Atmospheric Administration and price of feed grains from USDA's 2019 agricultural dataset to create a single dataframe that contained the price of feed grains and weather features for each state
- Created ridge regression, LASSO, and principal component regression models that predicated feed grain prices based on weather features for each state using glmnet in R
- Displayed the price of grains across the United States on an interactive map, as well as national weather features over time on a dashboard created with tableau
- Won 1st Place in Best Use of Outside Data

#### Informational Website on Home Purchase Loans

2020 Carolina Data Challenge, North Carolina 2018 HMDA Home Purchase Loan Applications Analysis

- Participated as a team of four in a data science hackathon analyzing the North Carolina 2018 HMDA Home Purchase Loan Applications Dataset
- Used R and Python to perform exploratory data analysis focusing on loan approval rates across North Carolina counties
- Displayed the average loan amount of approved loans and loan approval rate by county on interactive maps, as well graphs for the top five mortgage loaners and their approval rates created in tableau

# Predicting Win Percentage from Text in Dota2

Final Project for STOR 565 Machine Learning

- Collaborated on a team of 4 to develop a model that predicts win percentage from in-game chat for the game Dota2.
- Used the R package OpenDataR to retrieve fully parsed match data containing match outcome and the chat logs of each team for over 30,000 games from OpenData API
- Created naïve bayes, k-nearest neighbors, decision tree, principal component analysis, and random forest models using sklearn in python

#### Forward

COMP 585 Serious Games

- Worked with a clinical lab to create a video game aimed at helping adolescents re-enter school following hospitalization for suicide-related crises
- Followed SCRUM development process
- Developed a visual novel with the Godot game engine where the player can navigate social landmines in a simulated school setting

#### Contact Details

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#### Skills

2017 - 2021

2021

Python

R

SQL

Tableau

**MATLAB** 

Javascript

HTML

CSS

Excel