# JENNA SHINN

DATA SCIENTIST

## CONTACT


334.324.9765

jennacshinn@gmail.com


## LINKS

**RShiny**

Fourth Down Calculator

MLB Data Visualizations

**GitHub Page**

GitHub

## PROGRAMMING LANGUAGES

R
Python
SQL

## EDUCATION

**MASTER OF SCIENCE**
**Materials Engineering**
Auburn University

**BACHELOR OF SCIENCE**
**Major: Physics**
**Minor: Biomedical Sciences**
Auburn University

**CERTIFICATE**
Business Data Analytics
Auburn University

## PROJECTS

**MLB Pitch Prediction App**

- Surveyed the 2021 regular season data from BaseballSavant.
- Identified features that influenced pitch selection
- Developed a machine learning model to predict the next pitch thrown based on live, in-game situations.
- Built interactive Python Flask app to display predictions based on the user inputs for the inning, balls, strikes, outs, pitcher, and batter.

**Workforce Variation – Research and Statistical Analysis**

- Discovered employment statistics for multiple countries over the past decade.
- Manipulated data in SQL to find and investigate correlations between employee demographics and resignations.
- Forecasted future trends of employee resignation rates by industry.
- Authored analysis summation for each country and designed data visualizations for publication.

**NFL Fourth Down Conversion Calculator**

- Advanced machine learning model to determine the change in win probability for three fourth-down scenarios.
- Produced recommendations based on the scenario with the most gain in winning percentage.
- Created an application to display results and recommendations.
- Established user interactivity to adjust situational variables.

**Starbucks Customer Analysis**

- Restructured multiple large, messy datasets for data processing.
- Utilized advanced statistics to find relationships and correlations.
- Identified customer behaviors to be used for clustering.
- Engineered unsupervised machine learning technique using k-means clustering in Python.
- Assessed results and created customer profiles for each cluster.

**MLB Seasonal Data Visualization Application**

- Constructed data visualization application for statistics from the 2021 MLB season.
- Produced interactive visualizations for advanced statistics for both batters and pitchers.
- Formed interactive graphic to compare home runs between two players.