

# Math 264: Linear Algebra in Action

## Assignment 2: Massey Ratings Analysis using NFL Data

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### Overview

Explore the Massey rating system in this assignment, applying linear algebra to sports analytics. Utilize Python for NFL data analysis. For additional guidance, refer to the accompanying slides (link to be added).

### Data Source

Download the NFL 1978 season data from this link.

### Tasks

#### 1. The Massey Rating System

Research the Massey rating system and its linear algebra foundations. Review the accompanying slides (link to be added) for a deeper understanding.

#### 2. Data Collection

Download and familiarize yourself with the 1978 NFL season data.

#### 3. Data Preparation

Construct a matrix of point differentials for each game using Python.

#### 4. Applying Linear Algebra

Implement the Massey rating system. Use the slides (link to be added) as a reference.

#### 5. Analysis

Evaluate the computed ratings, discussing team performances and comparing them with season standings.

#### 6. Reflection

Reflect on the Massey rating system as an application of linear algebra in sports analytics.

### Deliverables

Submit a comprehensive report including your research, Python code, analysis, and reflections. Reference the slides in your report.