

Winning Time Predictions for 2024 Olympic Swimming Events, By Maddy Flickinger

Side Project Poster Session 2024

Methodology

- Collected data from the 1948-2020 Olympic Games
- Built Holt Exponential Smoothing Models for each event
- Trained on all Olympics up until 2016 (*number of observations varied by event)
- Validated on the 2020 games
- Chose the final model based on MAE criteria

Challenges & Limitations

- Small training set (18 observations at most)
- Did not consider competitions other than the Olympics
- The impact of COVID on the 2020 results

Results

- **5 world records** are expected to be broken at the 2024 Olympics

Event	Predicted 2024 Winning Time	Current World Record
Women's 100 Back	56.53	57.33
Men's 100 Back	51.49	51.60
Men's 100 Fly	49.30	49.45
Men's 200 Breast	2:05.29	2:05.48
Men's 200 IM	1:53.09	1:54.00

