Olympic Insights

Deep Learning

MSCS 612N-816

DeepLearners

Marist College

School of Computer Science and Mathematics

Submitted To:

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Project Report of Olympic Insights

Team Name

Deep Learners

Team Members

1. Elizabeth Herrera Elizabeth.Herrera1@marist.edu (Team Head)
2. Easton Eberwein Easton.Eberwein1@marist.edu (Team Member)
3. Austin Frank Austin.Frank1@marist.edu (Team Member)
4. Luca Gristina Luca.Gristina1@marist.edu (Team Member)

Description of Team Members

1. Easton Eberwein graduated from Marist in 2024 with a B.S. in Information Systems and Technology. He is in his final semester of Marist's 5-year M.S.I.S. graduate program to receive a degree in Information Systems Management and Business Analytics. He has also been a member of the Marist men's track and field team for 4 years, being a captain for 3 of those years.

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2. Elizabeth graduated from Marist in 2023 with a B.S in cybersecurity. She is now back at Marist to complete her MSCS with a concentration in AI. Elizabeth also works as a function tester for a z/OS security product at IBM.

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3. Austin Frank graduated from Marist in 2024 with a B.S. in Computer Science - Software Development. He is in his final semester of Marist's 5-year graduate program to receive his M.S. in Software Development. Additionally, he is a developer for the z/TPF database and business events.

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4. Luca graduated from Marist in 2024 with a B.S. in Computer Science - Software Development. He is currently in his final semester as a part of Marist's 5 year graduate program to receive his M.S. in Software Development.

Table of Contents

Introduction

General Description

The Olympic Games are one of the world's most popular sporting events. Held every four years, competitors from all over the world come to the games to achieve personal excellence and win medals for their countries. It's always exciting to see which athletes will come away with medals, but what if we had a way to predict the outcome of Olympic events? In this project we aim to see how accurately an AI model can predict an athlete's Olympic performance based on factors such as age, height, weight, sport and country.

Research Question

How accurately can an AI model predict an athlete's Olympic performance (e.g. medal likelihood or placement) based on factors such as age, height, weight, sport and country?

GitHub Repository Address

https://github.com/ElizabethHerrera12/DeepLearners

URL of your dataset

https://www.kaggle.com/datasets/heesoo37/120-years-of-olympic-history-athletes-and-results

This is a historical dataset on the modern Olympic Games, including all the Games from Athens 1896 to Rio 2016. This dataset includes basic bio data on the athletes as well as medal results.
The dataset was collected from www.sports-reference.com in May 2018 using R code.

Name, definition, and characteristics of features

1. **ID** - Unique number for each athlete
2. **Name** - Athlete's name
3. **Sex** - M or F
4. **Age** - Integer
5. **Height** - In centimeters
6. **Weight** - In kilograms
7. **Team** - Team name
8. **NOC** - National Olympic Committee 3-letter code
9. **Games** - Year and season
10. **Year** - Integer
11. **Season** - Summer or Winter
12. **City** - Host city
13. **Sport** - Sport
14. **Event** - Event
15. **Medal** - Gold, Silver, Bronze, or NA

References

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