Title	*Forecasting NBA Careers*	
Team members	*Name 1: Mario Muñoz Serrano* *NIA 1: 229829*	*Name 2: Gael Ribes Victor* *NIA 2: 242311*

Project description and expected benefits

- The purpose of this project is to develop a robust and accurate method for predicting the career arcs of NBA players. Developing a tool to determine the career outcome of an NBA player, our goal is to provide insights and solutions to the player career arc problem. Offering a practical tool that can assist General Managers and decision-makers in making informed decisions about player contracts in the ever-evolving landscape of professional basketball.

Required data sources

- Player statistics including player information (ID, name, draft year, draft pick) and detailed player statistics, such as. Games, Games Started, Minutes Played. Statistics for shots attempted, made, and shooting percentages across different zones. Offensive Rebounds, Defensive Rebounds, Total Rebounds, Assists, Steals, Blocks and Turnovers. As well, Total Fouls and Points.
- Player awards. Such as all-NBA team selections, Defensive Player of the Year, Most Valuable Player of the Year, and All-Star Game appearances.
- Data Sources (NBA API, Basketball Reference and WikiData)

Expected results/delivery/output

- Notebooks for Data Collection, data processing and data labelling purposes.
- A stremblit webapp that uses pickle files with three pages (General model explainability, local model explainability and career outcome prediction for new players)

Visualization method

- SHAP visualizations and visual analytics for supervised models, as well basketball-reference-like tables. Through an streamlit webapp.