Deployment & Reproduction Guide

Team 5

Public Github: https://github.com/TylerVenner/Analysis-of-NBA-Contract-Valuation-Bias

1. Front-end Setup Guide

This application is built using Streamlit. To ensure full functionality and access to the latest assets, we recommend running the project from our GitHub repository.

Prerequisites

- Python 3.8 or higher installed.
- Git (optional, for cloning).

Step-by-Step Installation

Step 1: Download Source Code

We recommend downloading the latest version of the code directly from GitHub to ensure all large data assets are present.

git clone https://github.com/TylerVenner/Analysis-of-NBA-Contract-Valuation-Bias.git

Step 2: Install Dependencies

Run the following command to install the required libraries:

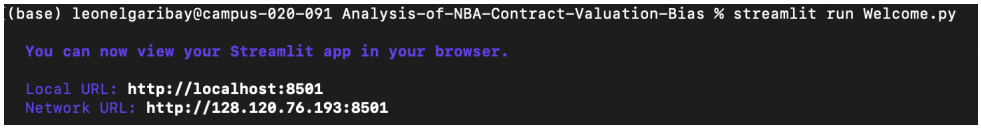
pip install -r requirements.txt

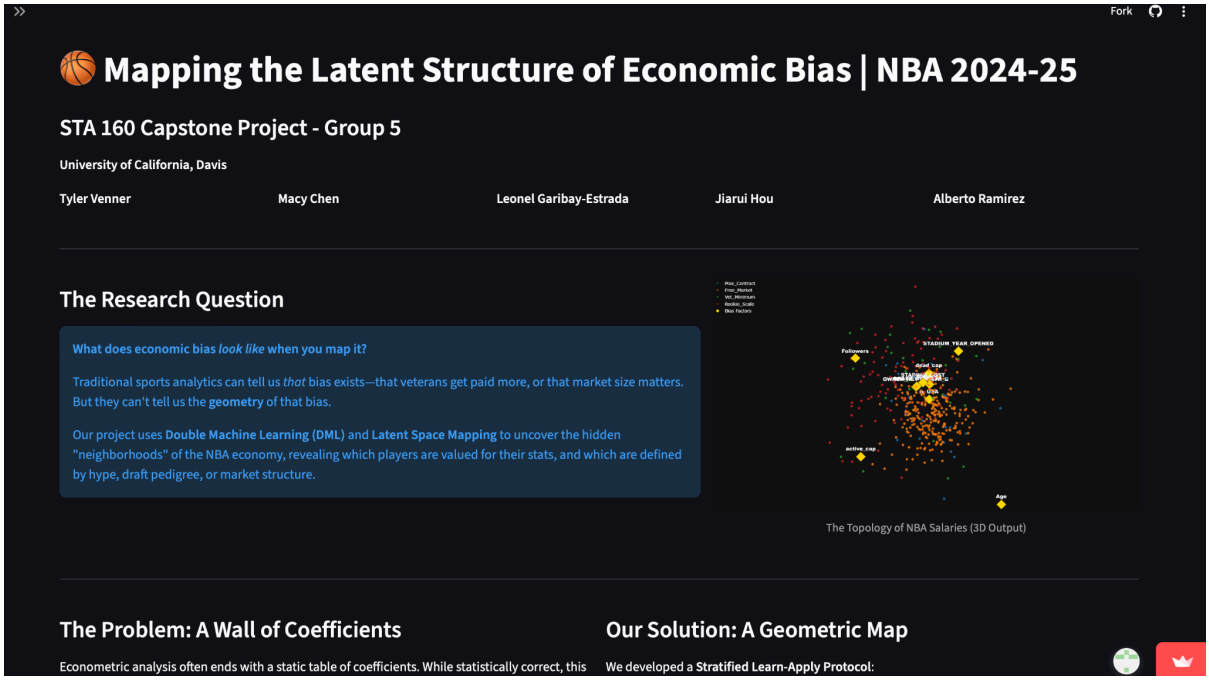
Step 3: Run the Application

streamlit run Welcome.py

Verification

The application will open automatically in your default web browser at http://localhost:8501.





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2. Backend Model Deployment

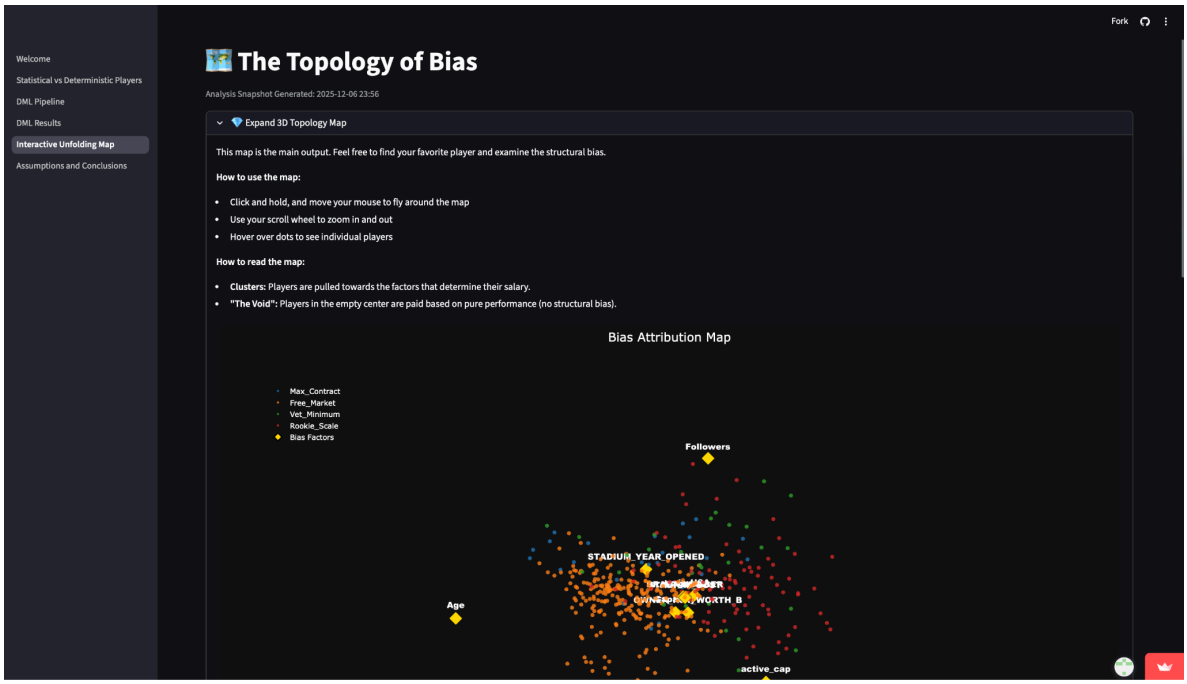
The backend logic is integrated directly into the Streamlit application. To ensure a smooth user experience during evaluation, the application is designed to use pre-computed models.

Operational Note

- **No Local Training Required:** The application does not retrain the machine learning models locally when you run it. Training is computationally expensive and time-consuming.
- **Pre-computed Outputs:** Instead, the application loads pre-trained model artifacts and pre-calculated datasets (stored in the `data/` directories).
- **Logic:** When you interact with the dashboard, you are querying these pre-computed results, ensuring instant feedback without the need for high-performance hardware.

Configuration

- **Environment:** Runs entirely on `localhost`.
- **API Keys:** No external API keys are required for the core reproduction of results.



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3. Cost Summary

The reproduction of this project is designed to be cost-free.

Component	Provider	Cost	Notes
Compute	Local Machine	$0.00	Runs on user's local CPU.
Model Serving	Streamlit Local	$0.00	Uses pre-computed model weights.
Storage	GitHub / Local	$0.00	Code and data are hosted for free.
Total Cost		**$0.00**	**All components within free usage.**